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Globalization and Firms' Financing Choices

Evidence from Emerging Economies

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Debt-equity ratios do not tend to increase after financial liberalization, but there is a shift from long-term to short-term debt. Globalization has uneven effects for firms with and without access to international capital markets. Countries with deeper domestic financial markets are less affected by financial liberalization.

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Summary findings

Schmukler and Vesperoni investigate whether integration with global markets affects the financing choices of firms from East Asia and Latin America. Using firm-level data for the 1980s and 1990s, they study how leverage ratios, the structure of debt maturity, and sources of financing change when economies are liberalized and when firms gain access to international equity and bond markets.

The evidence shows that integration with world financial markets has uneven effects.

On the one hand, debt maturity for the average firm shortens when countries undertake financial liberalization.

On the other hand, domestic firms that actually participate in international markets get better financing opportunities and extend their debt maturity.

Moreover, firms in economies with deeper domestic financial systems are affected less by financial liberalization.

Finally, they show that leverage ratios increase during times of crisis.

In an appendix, they analyze the previously unstudied case of Argentina, which experienced sharp financial liberalization and was hit hard by all recent global crises.

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Globalization and Firms' Financing Choices: Evidence from Emerging Economies [Θ]

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I. Introduction

The late 1980s and 1990s witnessed unprecedented developments in the financial sector of emerging economies. Emerging markets became more open and integrated with the rest of the world. After lifting restrictions on capital movements, countries received record high levels of capital inflow. During the 1970-80s, capital flows were mainly directed to governments or to the private sector through the banking system. Whereas, in the 1990s, capital flows took the form of foreign direct investment and portfolio flows, including bond and equity flows. Companies in emerging markets are now participating in international financial markets. Equity trading is shifting from local domestic markets to international markets. As financial markets became more global, a remarkable series of financial crises occurred, with significant spillover effects across countries. Countries open to financial flows were severely affected by swings in international financial markets.

Even though the recent events have generated a vast literature on globalization, financial liberalization, and financial crises, there is very little empirical evidence at the corporate level. The goal of this paper is to study the relationship between firms' financing choices and global financial integration. We focus on emerging economies, which are rapidly integrating with world markets. Both macroeconomic and microeconomic factors determine a country's financial integration within the world economy. At the macroeconomic or country level, we evaluate the impact of financial liberalization on financial structure. We also study the effects of financial crises and domestic financial development on firms' financing. At the microeconomic or firm level, we examine how firms' access to international debt and equity markets is associated with financial structure. Additionally, we analyze differences between bank-based and market-based systems. The

appendix section presents the results for the case of Argentina, a country not studied by the existing literature, which experienced a marked liberalization process and was hit hard by the recent crises.

Financial choices (or financial structure) are characterized by the following ratios: debt over equity, short-term debt over equity, long-term debt over equity, short-term debt over total debt, and retained earnings over total liabilities.[1] To study the effects of financial integration on financial structure, this paper uses a novel data set. We construct a large panel of non-financial companies located in East Asia and Latin America. We work with seven emerging countries that have experienced financial liberalization and crises. Our data comprise firms from Argentina, Brazil, Indonesia, Malaysia, Mexico, South Korea, and Thailand. The data cover the 1980s and 1990s. Thus, we are able to compare pre and post liberalization periods. We gather data on balance sheets, firm specific characteristics, and the actual participation of companies in international bond and equity markets.

The recent events in emerging economies and the ongoing debate in the financial and international economics literature are the main motivations for this paper. The current literature on financial structure studies the effects of firms' characteristics, financial institutions, and legal institutions on firms' financing decisions. In particular, the literature concentrates on the choice between debt and equity and the maturity structure of debt. Potential conflicts of interests between holders of different securities and certain specific characteristics of firms might affect agency costs associated with available financial instruments. Demirgüç-Kunt and Maksimovic (1994) and Aivazian, Booth, Demirgüç-Kunt,

[1] Note that the term "financing choices" in this paper is what other papers on corporate finance call "financial structure." In this paper, we use both terms as synonyms. However, the term "financial

and Maksimovic (1999) empirically study these issues by working with 10 developing countries, mostly during the 1980s. Our data set, which includes the 1990s, enables us to expand this literature by analyzing the effect of financial liberalization and crises on financial structure. Also, the data on access to global capital markets enable us to study the effects of financial integration at the firm level.

This paper also sheds light on the finance literature, which studies the efficiency of different financial systems in the intermediation between saving and investment. In particular, the literature discusses the pros and cons of bank-based vis-à-vis market-based models of organization.[2] The evaluation of managers and firms performance on the part of lenders may be an expensive activity. Therefore, there is a trade-off between liquidity of financial instruments and control of debtors.[3] While market-based systems are better suited to offer liquid financial instruments to investors, bank-based systems promote long-term relationships between intermediaries and borrowers and facilitate corporate control. This implies that the different systems may be better at providing funds for different firms. Banks may be well prepared to fund start-up firms, while public markets can be better prepared to finance established firms, typically with more tangible assets.[4] Our data set enables us to study whether firms' financing choices are different in countries with bank-based and market-based systems. Also, we can study whether access to more developed financial markets affects bank-based and market-based systems differently.

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structure" is also used to denote differences in the composition of financial systems—for example, bank-based vs. market-based financial systems.

[2] See Demirgüç-Kunt and Levine (1997).

[3] Financial securities, which are quickly and cheaply exchanged in the market, can save resources allocated to exercise some control over corporations. See Bhide (1993).

[4] The need to monitor firms might lead banks to provide stage financing. This type of financing enables banks to monitor firms at different stages of the investment projects. So, the characteristics of long-term

Finally, this paper provides new evidence for the literature on international finance, which studies financial and balance of payments crises. The literature argues that financial liberalization can lead to over borrowing syndromes, increasing the likelihood of crises. McKinnon and Pill (1997) claim that implicit government guarantees might prompt banks to engage in moral hazard lending and drive economies to over-investment cycles. Kaminsky and Reinhart (1999) suggest that financial liberalization can fuel lending booms and produce exaggerated business cycles that lead to financial crises. Krugman (1999) argues that the deterioration of firms' balance sheets may have played a crucial role in the late Asian crisis.

The existing empirical literature in international finance only looks at aggregate-level evidence. We complement this literature by providing valuable evidence at the firm level, which gives us further insights in the process of financial integration. We can directly observe whether aggregate effects—like financial liberalization and crises—affect the firms' financing choices. Moreover, by concentrating on the micro level, we can study differences across firms within the same macro framework. For example, do firms that access international financial markets change their leverage levels and the maturity composition of their debt?

The rest of the paper is organized as follows. Section II discusses the data and methodology used in the paper. Section III describes the effects of financial liberalization on financing choices. It also analyzes the effects of financial integration when firms access and list in international capital markets. Section IV presents the evidence for bank-based and market-based financial systems. Section V summarizes the results and concludes.

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lender-borrower relationships in bank-based financing systems do not necessary imply long-term

Finally, the appendix section presents in detail the case of Argentina and provides a literature review.

II. Data and Methodology

II.a Data Description

Our sample contains data on firms from seven emerging economies: Argentina, Brazil, Mexico, Indonesia, Malaysia, South Korea, and Thailand. The countries in the sample are of particular interest, since they have undergone periods of financial repression, followed by financial liberalization and crises. Data on firms' balance sheets come from two sources, the corporate finance database of the International Finance Corporation (IFC) and WorldScope. IFC has complete data for the 1980s; WorldScope has a large data set for mid and late 1990s. The data set contains a total of 1,973 firms. After removing outliers and firms that are in the sample for less than three years, we are left with around 800 firms.

To compare the pre-liberalization period (mainly the 1980s) with the post-liberalization period (mainly the 1990s), we combine data from both sources. Our sample comprises annual balance sheet data of publicly traded firms, from 1980 to 1999.[5] Previous work on corporate finance, notably Demirgüç-Kunt and Maksimovic (1995 and 1998) and Aivazian, Booth, Demirgüç-Kunt, and Maksimovic (1999), use similar data but only for the 1980s. We also add the case of Argentina, which was not studied before.

The data set contains detailed information on the capital structure of firms, but it does not include sources and uses-of-funds statements. We exclude from the sample

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liabilities.

financial firms and banks, given that there is lack of information on the maturity structure of time deposits and we are particularly interested about debt maturity. We also eliminate from the sample firms for which we have information for less than three periods. Given that available data only exist for publicly traded firms, we are mostly studying large companies.[6]

To measure financial integration at the firm level, we construct indicators of access to international bond and equity markets. First, we use data on international bond issues by firms from emerging economies. The data come from the database of H. Kalsi and A. Mody, World Bank Prospects Group, and JP Morgan. The data measure the access to international bond markets. Second, to capture access to international equity markets, we use the proportional value traded on American Depositary Receipts (ADRs), in the New York Stock Exchange, and on Global Depositary Receipts (GDRs), in the London Stock Exchange. This proportion is calculated relative to the total value traded for that firm's equity in all markets. Data on ADRs and GDRs come from Bloomberg.[7]

To measure financial liberalization in these economies, we employ the index of financial controls constructed by Kaminsky and Schmukler (1999). This is a qualitative multidimensional index of financial liberalization. The index takes into account controls on interest rates, legal restrictions for firms and banks to borrow in foreign markets, level of

[5] Appendix 2 presents, for each country, the number of firms and time periods covered in the sample.
[6] Data on publicly traded firms exist because firms have to submit their balance sheets regularly to the stock market authorities of each country. Accounting standards for other firms are different and there is no centralized agency that collects such data. If the data existed, it would be very interesting to analyze those firms.
[7] Given the data availability, it is very difficult to obtain the proportional value traded of bonds in international markets, as we do for equity trading. That is why we use a dummy variable for access to international bond markets. Also, there is no publicly available data on the amount of outstanding ADRs and GDRs. That is why we use the value traded as a proxy for access to international equity markets.

reserve requirements, and restrictions for residents to acquire assets in foreign currency. High values of the index stand for high levels of financial liberalization.

To test whether financial choices for firms in bank-based and market-based economies are different, we use the criteria in Demirgüç-Kunt and Levine (1999). They classify countries according to the characteristics of their financial sector. Following their classification, Argentina and Indonesia are bank-based financial systems, while Brazil, Mexico, Korea, Malaysia and Thailand are market-based financial systems.

II.b Stylized Facts

Before proceeding with the econometric analysis, we present a general overview on the behavior of different ratios that characterize firms' financing choices. We focus here on two issues. First, we briefly describe the effects of international financial integration on debt-equity ratios and the maturity structure of debt contracts. Second, we contrast firms' financial structure in bank-based and market-based economies. We organize our description in Figures I-III. These figures portray average debt-equity ratios (for total, short-term, and long-term debt) and the proportion of short-term debt over total debt for the seven emerging economies under consideration.

Figure I shows annual average debt-equity ratios and maturity structure of firms with and without access to international bond markets. The data suggest that debt-equity ratios of firms with access to international markets are clearly higher during the 1980s than during the 1990s. Debt-equity ratios may be reflecting the sharp development and increasing importance of equity financing in emerging economies during the 1990s.

Figure I also indicates that firms with access to international bond markets have higher values of long-term debt over equity and longer maturity structure, relative to firms with no access to international bond markets. More notably, firms with access to international markets have a marked lower proportion of short-term debt over total debt after 1991. The difference in maturity structure between firms with and without access to international bond markets increases over time, as financial integration deepens.

During the 1990s, bond markets for firms from emerging economies developed, allowing these firms to issue long-term debt. Accordingly, the financing choices for firms with access to international markets have changed in relation to the other firms' financial structure. The picture suggests that it is the evolution of long-term debt what makes the difference in the maturity structure.

Figure II presents annual average debt-equity ratios and maturity structure of firms with and without access to international equity markets. Since the access of emerging economies to international markets is a very recent phenomenon, we can only look at the effects of international equity financing during the 1990s. The data suggest that there is not a clear difference in the behavior of total debt-equity ratios of firms with and without access to equity markets. However, the figure also indicates that firms with access to international equity markets have more long-term debt and less short-term debt than firms with no access. As a consequence, the maturity structure of firms with access to international equity markets is longer.

Figure III shows annual average debt-equity ratios and maturity structure of firms in bank-based and market-based financial systems. These pictures offer two messages about the behavior of firms' financial structure. First, debt-equity ratios are consistently higher in

market-based economies. This relation holds both for short-term and long-term debt. This is a surprising fact, given that one would expect equity values (relative to debt) to be higher in market-based economies. Perhaps, bank-based economies are liquidity constrained, with banks not issuing enough credit to firms. Second, there are no significant differences in the maturity structure of debt in bank-based and market-based economies.

As discussed in the introduction, market-based systems are better suited to offer liquid financial instruments to investors, while bank-based systems promote long-term relationships between lenders and borrowers. Two possible explanations for this finding are as follows. One explanation is that greater liquidity does not necessarily imply short-term financial instruments. In fact, market-based systems are capable to create markets that offer liquidity to long-term financial instruments. The second explanation is related to stage financing, as explained by Stulz (1998). This kind of financing does not necessarily imply that long-term lending relationships entail long-term financial instruments, because creditors might want to monitor debtors at different stages. These explanations suggest that one might not necessarily expect short-term liabilities in market-based economies and long-term liabilities in bank-based systems.

II.c Variables and Methodology

The present paper studies three fundamental characteristics of firms' financial structure by estimating models with five different dependent variables. The three fundamental characteristics are: (i) the choice between debt and equity financing, (ii) the maturity structure of debt, and (iii) the choice between internal and external financing. The five dependent variables are as follows. The variable debt-equity tracks the evolution of

total debt and is defined as the ratio between total liabilities and the book value of equity. The variable short-term debt over equity captures the evolution of short-term debt. The variable long-term debt over equity is the ratio between long-term liabilities and the book value of equity. The fourth variable, short-term debt over total debt, captures the behavior of firms' maturity structure of debt. The fifth variable, retained earnings over total debt, describes the importance of internal financing.[8]

The explanatory variables can be grouped in four different categories: (i) firm specific characteristics, (ii) access to international capital markets, (iii) macroeconomic factors (namely, financial liberalization, crises, and financial development), and (iv) country effects. The variables in the first category focus on key characteristics of firms. They accomplish two objectives in our work. On the one hand, they allow us to analyze how different firms' characteristics affect firms' financing choices during the 1980s and 1990s. Therefore, we can compare our results with the existing literature, which only focuses on the 1980s. On the other hand, these variables work as control variables in a more general model that tests how financial liberalization and access to international markets affect firms' financing choices.

Among the firm specific characteristics, the first variable is the logarithm of firms' net fixed assets, which is a proxy for the size of firms. The second variable, the ratio of firms' net fixed assets over total assets, is an indicator of asset tangibility. The third variable captures the capacity of firms to generate internal resources and is defined as the

[8] Instead of retained earnings/total debt, the ideal variable to measure retained earnings would be retained earnings/total investment. However, the lack of firms' detailed flow statements does not allow us to properly define a ratio between the relevant flows. Then, we choose to measure the magnitude of retained earnings relative to the volume of 'external' obligations. Note that data on retained earnings for Mexican firms are not available.

ratio between firms' profits after taxes over total assets. Finally, we also include a variable that reflects the production mix. This is a dummy variable that takes a value of one if the firm is a producer of tradable goods, and zero otherwise. Tradable producers have the capacity to generate revenues in foreign exchange; thus, they might be able to obtain different kinds of financing.

The variables in the second category measure the effects of expanding the financing opportunities through access to international bond and equity markets. The variable capturing access to international bond markets is a dummy variable that takes a value of one for periods in which a given firm issues bonds in international capital markets, and zero otherwise.[9] The variable capturing access to international equity markets is defined as the monthly average of the proportion of equity traded in international markets relative to the total value traded for that firm in each year. This variable takes a value of zero for firms without access to international equity markets.

The third category involves macroeconomic factors that affect firms' financing. These factors include three variables. The first one captures financial liberalization. This variable is key in the paper, since it shows the effect of economic liberalization on financial structure. We work with the index of financial liberalization created by Kaminsky and Schmukler (1999). The index is an average of several indicators of financial liberalization in the economy. These indicators include liberalization of the domestic financial sector, as well as removals of restrictions on foreign borrowing and transactions in foreign currency. High values of the index reflect high degree of financial liberalization. The index reflects sharp liberalization processes in the following years for each country:

[9] Notice that the variable takes a value of one only for the period in which a firm issues international debt.

Argentina 1991, Brazil 1990, Mexico 1993, Indonesia 1992, Malaysia 1992, South Korea 1993, and Thailand 1990.[10]

The second variable related to macroeconomic factors is the one capturing financial crises. We construct dummy variables for the years 1995, 1997, 1998, corresponding to the Mexican crisis (1995) and Asian crisis (1997 and 1998). The year 1998 also captures the Russian crisis. It has been well documented that these crises had strong spillover effects on the economies under study.[11]

The last macroeconomic variable used is the degree of domestic financial development. Following Demirgüç-Kunt and Levine (1999), we work with the sum of the stock market capitalization and liabilities of the banking sector, as a percentage of GDP. We compute the interaction of this variable with the financial liberalization index, to study whether financial liberalization affects financially repressed economies more than financially developed countries. Since up to now data about the degree of domestic financial development is only available until 1997, the estimations that include this variable are displayed separately, in the appendix section.

Finally, we include country dummies to control for the nationality of firms. This is important in light of the previous work on corporate finance. For example, Demirgüç-Kunt and Maksimovic (1995) find that country characteristics, such as the efficiency of legal institutions and the development of capital markets in different countries, are important in explaining differences in firms' capital structure.

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[10] To check the robustness of the results, we also used a dummy variable instead of the index of financial liberalization. The dummy variable takes the value one after the dates indicated above. The results are qualitatively not different. Therefore, we report only one set of results.

[11] See papers at http://www.worldbank.org/research/interest/confs/past/papersfeb3-4/agenda.htm

We run five different panel regressions for each dependent variable. The first regression uses pooled data for the seven emerging economies in the sample. A second and third regressions analyze capital structure for the Asian and Latin American economies separately. The last two regressions focus on the contrast between bank-based and market-based economies.

The results are displayed in Tables I-VI. We report results from pooled ordinary least squares and *within* estimators (or fixed effects), with robust standard errors. In this way, we are able to compare our results with those from the existing literature in corporate finance. Since *within* estimations control for firm specific effects, these models give us intra-firm information. For example, *within* estimates tell how deviations from each firm's average net assets affect deviations from the average debt-equity ratio. On the other hand, OLS estimations combine both inter-firm and intra-firm effects. Pooled OLS estimates do not contain firm specific effects. Then, we are able to include country specific effects and the variable that captures the production mix (whether firms produce tradable goods). These variables cannot be included in the *within* estimations because they are perfectly collinear with firm specific effects.[12]

The OLS models estimated are:

$$\begin{aligned} Y_{i,c,t} &= n_c + p_{i,c} + \beta' X_{i,c,t} + \gamma' A_{i,c,t} + \theta' M_{c,t} + \omega_{i,c,t} \\ \omega_{i,c,t} &\sim N(0, \sigma^2_{i,c,t}) \end{aligned},$$

such that $i = 1,...,N, c = 1,..., C,$ and $t = 1,...,T.$

$Y_{i,c,t}$ represents the five variables defined above, which measure the firms' financing choices. The sub-indexes i, c, and t stand for firm, country, and time respectively.

$X_{i,c,t}$ stands for the three variables capturing firm specific characteristics. $A_{i,c,t}$ denotes access to international financial markets. $M_{c,t}$ captures the macroeconomic variables, which only vary with time but not across firms. n_c stands for the country effect. The variable takes the value one for all firms in country c. $p_{i,c}$ stands for the production mix.

The *within* models estimated are:

$$Y_{i,c,t} = f_{i,c} + \beta' X_{i,c,t} + \gamma' A_{i,c,t} + \theta' M_{c,t} + \varepsilon_{i,c,t}$$
$$\varepsilon_{i,c,t} \sim N(0, \sigma^2_{i,c,t})$$

such that $f_{i,c}$ is the firm specific effect.

The above estimations assume exogeneity of the explanatory variables. If some of the right hand side variables were endogenously determined, we would need to use valid instruments to avoid endogeneity biases. Given that the existing literature on corporate finance performs the estimations assuming exogeneity, our results are comparable to current results in the literature. However, to control for potential biases due to endogeneity and to check the robustness of the results, we estimate instrumental variable (IV) models.

The instruments are constructed as follows. In the case of the variables with continuous values, we use lagged values of the same variables as instruments. We work with two lags, to avoid cases for which there might be first-order autocorrelation of the residuals. This technique assumes that past values of the explanatory variables are uncorrelated with the contemporaneous error term. At the same time, past values of the explanatory variables are correlated with contemporaneous values of the explanatory variables.

[12] *Within* estimations include one dummy variable per firm. Thus, firm specific characteristics with no time variation and country dummies would be a perfect linear combination of firm dummies.

The dummy variables (firm specific characteristics and country effects) are not instrumented, except the variable capturing access to international bond markets. This latter variable might be endogenous, since it may be easier for firms with a certain financial structure to issue foreign bonds. Past values of this dummy variable are not suitable instruments because of its low correlation with contemporaneous values. Therefore, we construct a new instrument that indicates the degree to which capital markets are "open" for the country where the firm resides. The instrument takes the value 1 if two conditions are fulfilled. First, markets are "open" for the country, in the sense that at least one firm from that country issues bonds in international capital markets during that period. Second, the firm is an "international" firm, in the sense that the firm was able to issue international bonds at least once before or at the period under consideration. Otherwise, the variable takes the value 0. This variable seems to be a valid instrument, given that the degree of market openness is expected to be uncorrelated with firm-level errors and, at the same time, it is correlated with the firm's access to international bond markets.[13]

III. Financing Choices: Empirical Results

This section presents the estimation results, which are displayed in Tables I-V. We first describe the effects of firm specific characteristics on financial structure, to compare our results with the existing literature. These results allow us to determine whether including the 1990s in the sample significantly change the relation between financial structure and firm characteristics. Second, we analyze how access to international financial

[13] Future research will likely come up with alternative instruments and further test the robustness of the results, but so far the existing literature has not proposed better instruments to deal with potential endogeneity biases.

markets affects financing choices. Third, we describe the macroeconomic effects on financial structure.

III.a Firm Specific Characteristics and Financing Choices

The results show that the variable size of firms—captured by the log of net fixed assets—is particularly relevant in East Asia. Larger firms have a lower level of short-term debt. This effect is relevant in the OLS, *within*, and IV models. Also, larger firms have a higher level of long-term debt. This effect is significant in the OLS and IV estimations. Consequently, larger firms have a longer maturity structure of debt. This result holds for both East Asia and Latin America in the OLS and *within* estimations, and for East Asia in the IV equations. Larger firms may have more access to credit markets, especially long-term debt markets and equity markets. These results are consistent with Demirgüç-Kunt and Maksimovic (1995) and Aivazian, Booth, Demirgüç-Kunt, and Maksimovic (1999).

The variable related to the tangibility of assets, net fixed assets over total assets, is statistically significant in the regressions for both East Asia and Latin America. Large tangible assets reduce debt-equity ratios, mainly through a reduction in short-term debt. As a consequence, large tangible assets extend the debt maturity structure. The effect is relevant in the OLS and IV regressions for East Asia and in the OLS, *within*, and IV estimations for Latin America. This result is partially consistent with the work by Aivazian, Booth, Demirgüç-Kunt, and Maksimovic (1999), who find that debt-equity ratios decrease with a higher proportion of net fixed assets. The effect on the maturity structure is also consistent with the previous literature. However, in Aivizian et al., the effect works through increases in long-term debt. Finally, the finding on tangibility of assets supports the

argument by Morris (1976), according to which firms match the maturity of assets and liabilities. To reduce the probability of liquidity problems, firms with larger fixed assets need a longer maturity structure.

The variable profits over total assets is statistically significant in most OLS, *within*, and IV regressions in East Asia and Latin America. More profits are associated with lower short-term and long-term debt. Also, higher profits are related with shorter debt maturity structure—suggesting that long-term debt shrinks more than short-term debt. Additionally, higher profits are positively correlated with the level of internal financing (retained earnings over total debt). These findings agree with the existing literature. The results are consistent with the pecking order hypothesis (Myers, 1984 and Myers and Majluf, 1984). Higher profits shifts the financing choices towards internal financing, so that retained earnings finance investment projects, avoiding the market under valuation of firms' securities.

The variable for tradable producers is statistically significant for East Asian economies in some specifications. Tradable producers have lower debt-equity ratios, particularly long-term debt. The maturity structure of tradable producers is biased towards the short-term, relative to non-tradable producers. Internal financing is more important for East Asian tradable producers. These are new results; they have not been tested before in the literature. Following Diamond (1991a), one can argue that tradable producers are less vulnerable to domestic financial crises.[14] Therefore, they should be less concerned about liquidity risk and they could possibly receive better future rating. Therefore, tradable producers might prefer to have a shorter maturity structure.

III.b Access to International Markets

The OLS, *within*, and IV estimations show that access to international bond markets is positive and statistically significant in the models for long-term debt. Also, access to international bond markets is associated with longer debt maturity. Both effects are relevant in Latin America and East Asia. In the case of Latin America, issues of international bonds are positively correlated with leverage. This implies that domestic firms are not just replacing short-term financing in local markets for long-term financing abroad. In East Asia, access to international bonds is negatively correlated with internal financing in the *within* estimations.

Capital markets in developed countries typically have better financial institutions and liquidity than markets in emerging economies. These characteristics simplify activities in the financial intermediation sector. Remarkably, the maturity mismatch that distinguishes these activities can be better managed, promoting deep markets for long-term financing. The evidence suggests that firms from emerging economies benefit from accessing international markets, where they can obtain long-term financing.

Access to international equity markets is associated with higher leverage. This effect is significant in the OLS and IV regressions, but not in the *within* estimations. In Latin America, access to international equity markets is positively correlated both with short-term and long-term debt. In East Asia, this effect only holds for short-term debt.[15]

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[14] This effect is particularly relevant if one takes into account the extent of liability dollarization in emerging economies. See Calvo and Reinhart (1999).

[15] Note that access to international equity markets seem to have stronger effects in Latin American than in East Asia. This difference might be due to the fact that Latin American companies started participating earlier and to a much larger extent in international equity markets.

Increases in the amount of equity traded abroad are not related to intra-firm financing choices. The above results imply that access to international equity markets may simplify firms' access to debt markets. The data show that this is an inter-firm result, suggesting that access to equity markets affects financial structure by differentiating firms. In other words, access to markets may be signaling credit worthiness.

III.c Financial Liberalization and Crises

The different estimations show that financial liberalization has statistically significant effects on financing choices of firms from emerging economies. First, leverage ratios decrease for all types of debt. This result holds for the regressions that jointly consider East Asian and Latin American firms, and for those that only consider East Asian firms. Second, as economies become more open, the maturity structure shifts to the short term in both East Asia and Latin America. Finally, financial liberalization is positively correlated with level of internal financing only in East Asia.

The fall in debt-equity ratios after financial liberalization does not support the belief that these policies lead to overborrowing—if one focuses on debt relative to equity. Borrowing may increase after financial liberalization, but it does not seem to increase relative to equity. Consider that these estimates only cover non-financial firms and financial liberalization took place in the early 1990s. Therefore, the arguments made in the papers related to recent crises do not necessarily contradict our findings. Debt-equity ratios might have increased mainly in the middle and late 1990s and mostly in financial firms.

The development and growing importance of equity markets during the 1990s might help explain why we find declining debt-equity ratios. Financial liberalization in the 1990s differs from liberalization programs of the previous decade. Portfolio flows now play a crucial role in international capital markets. Moreover, globalization may reduce the cost of equity capital, which in turn might help in the development of equity markets. Stulz (1999) explains how globalization reduces the cost of equity capital. First, he argues that globalization can reduce the discount rate that investors apply to cash flows generated by equity investment. Stulz also explains that globalization could improve corporate governance, making less expensive for firms to raise funds in capital markets.

The existing literature on corporate finance provides arguments that explain a shortening debt maturity structure after financial liberalization. Myers (1977) shows that when the value of firms depends on growth opportunities, shareholders might decide to under invest to avoid passing the proceeds of future projects to bondholders. Myers claims that, alternatively, a shorter debt maturity structure can avoid sub-optimal investment decisions. Firms from emerging economies typically face new growth opportunities when financial liberalization takes place.[16] To take advantage of these opportunities, firms might decide to undertake short-term debt.

Existing arguments on the international finance side might support an alternative explanation for the shortening maturity in East Asia after financial liberalization. On the real side, Krugman (1994), among others, argue that these economies' growth processes have been mainly conducted through inefficiently allocated capital accumulation. On the financial side, East Asian economies have been characterized by inadequate prudential

regulation of the financial sector and by strong incentives to borrow abroad, due to high domestic funding costs.[17] The prospect of diminishing returns, after a long process of growth without productivity gains, may induce international lenders to be cautious in taking long-run positions.[18] This may increase long-term risk premiums and create incentives for firms to bias their maturity structure to the short-term.

Even thought an emerging economy might move to a shorter maturity structure, the financial liberalization variable can only capture the effects of financial integration at the aggregate level. This variable cannot identify the effect of the actual participation in developed financial markets on the firms' financing choices. To study this effect, we showed in the previous section how financial structure change when firms issue bonds or trade equity in international markets. Firms with access to international capital markets might behave differently than firms constrained to funding investment through domestic markets.

The financial liberalization variable and the variable capturing access to international capital markets suggest that financial integration does not seem to have a uniform effect across firms. On the one hand, access to international bond markets during the 1990s is associated with an extended maturity structure of firms that participate in these markets. On the other hand, the maturity structure shrinks for the whole economy. These two facts suggest that firms constrained to local financial markets increase short-term

[16] In fact, large current account deficits in emerging economies are usually interpreted as evidence of new investments in projects with high-expected returns.
[17] See, for example, World Bank (1998).
[18] Claessens et al. (1998) argue that relatively low profitability in some of the Asian economies forced firms to look for external financing during the decade previous to the financial crisis, with short-term debt playing an important role.

borrowing more than firms with access to international financial markets increase long-term borrowing.[19]

Financial crises have a significant effect on leverage ratios. Long-term and short-term debt-equity ratios increase in all crises.[20] The effects seem to be stronger during the Asian crisis (in 1997 and 1998) than during the Mexican crisis. The latter was localized in the first quarter of 1995 and mainly involved Mexico and Argentina. Whereas, the Asian Crisis had important effects on East Asian firms, with strong spillover effects on other emerging economies. High interest rates during crisis times appear to be the main factor behind higher leverage ratios. The evidence also indicates that the maturity structure shifts to the long term. Probably, debt contracts with floating-rates increase the level of long-term debt during crises, while firms find it difficult to roll over short-term debt.

III.d Financial Liberalization and Domestic Financial Development

In the previous section we studied the effect of financial liberalization on financial choices. However, one can expect that countries with varying degrees of domestic financial development will be affected by financial liberalization differently. When emerging economies integrate with world capital markets, some firms can gain access to more developed markets. Firms from countries with deep domestic financial systems should see few changes after opening to world markets. Whereas, companies from countries with repressed domestic financial markets should face new financing opportunities when financial liberalization takes place. However, if all emerging markets

[19] The behavior of domestic financial intermediation might play an important role on the maturity structure of debt in emerging economies, altering the effects of financial liberalization on leverage ratios.

are much less developed than international financial markets, the degree of domestic financial development should not have a significant effect.

We test whether domestic financial development matters by using the indicator constructed by Demirgüç-Kunt and Levine (1999). As mentioned before, this indicator is the sum of the stock market capitalization and liabilities of the banking sector, as a percentage of GDP. We use the interaction of this indicator with the index of financial liberalization. This interaction measures the effect of financial liberalization on firms' financing choices, according to the degree of domestic financial development. If the development of the domestic market is significant, we expect this variable to have the opposite sign of the financial liberalization variable. For example, if financial liberalization reduces debt-equity ratios, we expect the coefficient of the interacted variables to have a positive sign.

The results are reported in the appendix tables. As expected, they show that more developed domestic financial systems are less affected by liberalization processes. In general, the interaction variable has the opposite sign of the liberalization variable. In other words, the negative correlation between liberalization and leverage is stronger in less developed domestic financial systems. Also, the maturity structure moves to the short term after financial liberalization to a lesser degree in countries with deeper financial markets.

[20] Note that this effect is not affected by the decline in stock market prices. As mentioned before, we work with the book value of equity.

IV. Bank-Based vs. Market-Based Systems

In this section, we estimate two sets of regressions. One set contains the countries characterized as bank-based economies (Argentina and Indonesia). The other set includes the countries classified as market-based economies (Brazil, Malaysia, Mexico, South Korea, and Thailand). The goal of these estimations is to compare the effect of financial liberalization and access to international capital markets on financial structure of firms from bank-based and market-based systems. All these results are tabulated in Tables VI.

If the differences between market-based and bank-based systems are significant, one will expect differentiated effects of the integration with international financial markets. In particular, we should see differences in the variables that capture access to international financial markets. These variables measure the participation of local firms in global bond and equity markets. Consequently, these variables necessarily imply a shift towards market oriented systems. The regressions help us distinguish whether this effect is different across systems.

If the difference between market-based and bank-based systems is small, relative to the difference between emerging and developed economies, access to international financial markets should have similar effects on firms from both systems. Given that we are working with few countries, it is hard to disentangle any country specific effects from system specific effects. Therefore, the results on bank-based and market-based systems should be subject to further research to obtain general conclusions. The evidence presented here should be considered as a first approach to the problem.

The variable financial liberalization captures, among other things, the deregulation of the domestic financial sector. During this process, economies move to financial

intermediation based on market incentives. However, financial liberalization does not necessarily denote a shift towards market-based systems (as described in Demirgüç-Kunt and Levine, 1999). Financial liberalization can lead to the development of a competitive banking sector. As a consequence, it is less straightforward to expect a specific difference in this variable in the regressions for each system. The effect of this variable will depend on the developments in the aftermath of financial liberalizations.

The results show that firm specific characteristics affect financial structure both in bank-based and market-based systems. The maturity structure of debt extends as firms' increase in size, both in bank-based and market-based systems. In market-based systems, both short-term debt and long-term debt vary with size. In bank-based systems, just long-term debt and debt-equity ratios increase with size.

Assuming that larger firms are also the more established ones, one could argue that, in market-based systems, these firms issue less risky securities. As a consequence, firms are able to shift their maturity structure to the long-term. Larger firms increase long-term debt and decrease short-term debt. Moreover, larger firms have a lower level of internal financing. In bank-based systems, one could argue that stage financing has a role. As firms grow and get established in the market, banks do not need to spend resources to control them periodically. As a consequence, long-term debt and debt-equity ratios are positively associated with firms' size.

Regarding the tangibility of assets, there is no significant difference between-bank-based and market-based systems on the leverage ratios. In market-based systems, firms with more tangible assets have a longer debt maturity structure and higher level of internal financing. The effects of profits over total assets on financial structure yield no differences

between bank-based and market-based systems. Finally, regarding firms' characteristics, the results suggest that tradable producers bias their maturity structure to the short-term. There are no differences between bank-based and market-based economies, except that tradable producers have a higher level of internal financing in market-based systems.

Access to bond markets increases long-term debt and extends the maturity structure of debt, both in market-based and bank-based financial systems. Results do not only capture differences between firms, but also within a given firm. Companies with access to bond markets seem to react in the same way in bank-based and market-based financial systems. In bank-based systems, the OLS and IV estimates show that firms that access international bond markets also increase their debt-equity ratios, suggesting that they are not just replacing bank debt with bonds. The results suggest that bank-based systems seem to be liquidity constrained, given that firms increase their leverage as they access to international bond markets. Also, *within* regressions show that, in market economies, firms with access reduce internal financing.

The financial liberalization variable is negatively associated with both short-term and long-term debt in market-based economies. However, the maturity structure moves to the short term and internal financing increases.

Regarding the crisis variables, the Mexican crisis does not have sizable effects on capital structure, except that the maturity structure increases in market-based systems. During the Asian crisis, market-based economies were affected first, in 1997, with increases in most leverage ratios. During 1998, both systems were affected. However, bank-based economies were able to increase the maturity structure of debt. Most probably, the increase in interest rates during the crisis is behind higher debt-equity ratios. Short-

term debt is issued or renegotiated at higher interest rates. Long-term debt increases under floating rates.

V. Summary of Results and Conclusions

There is growing literature on the effects of financial liberalization in previously closed economies. There is also a growing literature linking firms' characteristics to financial structure. Following these two literatures, this paper analyzed cross-country microeconomic data on financing choices during the process of integration with global financial markets. To our knowledge, this type of evidence has not been previously examined.

The paper investigated whether financial integration affects the financing choices of non-financial firms in emerging economies from East Asia and Latin America. Using a firm-level panel, we studied the behavior of firms' financing choices when economies become liberalized and when firms access international bond and equity markets. We focused on leverage levels, debt maturity, and the choice between external and internal financing to study financial structure.

The results from this paper can be summarized as follows.

- *Firm specific characteristics and financing choices:* Although we extended the sample to include the 1990s, our results are consistent with the previous literature, which mostly covers the 1980s. In other words, larger firms and firms with more tangible assets extend their debt maturity. Higher profits are associated with more internal financing, less leverage, and shorter debt maturity. We also extended the existing literature by analyzing the effects of the production mix on financial structure. The evidence suggests

that firms producing tradable goods in East Asia have shorter maturity and higher internal financing.

- *Access to international bond markets:* The data suggest that firms with access to international markets increase their long-term debt and lengthen their debt maturity structure. Also, access to international bond markets is negatively related to internal financing in East Asia, while it is positively correlated with leverage in Latin America.

- *Access to international equity markets:* When more equity is traded in international markets, firms increase short-term debt. In Latin America, the shift to global markets is positively associated with long-term debt and a longer maturity structure.

- *Financial liberalization:* The evidence shows that financial liberalization is positively correlated with internal financing and negatively related to both short-term and long-term debt-equity ratios, particularly in East Asia. The evidence also suggests that financial liberalization is associated with a shorter debt maturity structure, both in East Asia and Latin America.

- *Financial crises:* Leverage ratios tend to increase during crisis times. Given that issues of international bonds decreased and there probably was a reduction of domestic debt issues during crisis years, higher interest rates are likely behind the increase in debt-equity ratios. The evidence also shows cross-regional spillover effects. Leverage increased in East Asia during the Mexican crisis and in Latin America during the Asian crisis. Finally, the maturity structure extends during crisis times, what may be due to floating rates in long-term debt and non-renewal of short-term debt contracts.

- *Financial integration and domestic financial development:* The evidence suggests that firms in emerging economies with more developed domestic financial systems are less affected by financial liberalization.

- *Bank-based vs. market-based systems:* Assuming that the countries in our sample represent bank-based and market-based economies accurately, the results suggest that integration with international capital markets affect all emerging economies similarly. In other words, the difference between emerging and developed markets seems to be more important than the difference between bank-based and market-based emerging economies. Access to international bond markets increases maturity in both types of systems. The data also show that access to bond markets increases leverage in bank-based economies, suggesting that their domestic financial sector might be liquidity constrained.

- *Case study of Argentina:* Consistent with the general evidence, larger Argentine firms extend their debt maturity. In contrast to other emerging economies, larger firms also increase short-term debt. As in other countries, more profitable firms reduce leverage and increase internal financing, while more tangible assets are associated with less leverage. Access to international bond markets extends debt maturity, while access to international equity markets has the opposite effect. Consistent with the East Asian experience, financial liberalization reduces debt-equity ratios and shortens debt maturity. In contrast to other emerging economies, the Mexican crisis reduces the debt maturity structure. Finally, we found a strong relationship between debt currency denomination and maturity. To extend the maturity structure, firms contract foreign currency debt.

In sum, our main results show that globalization of financial markets are related to firms' financing choices. Globalization seems to have uneven effects. On the one hand, domestic firms that actually participate in international markets obtain better financing opportunities. For example, these firms are able to extend their liability maturity structure. On the other hand, debt maturity tends to shorten when countries undertake financial liberalization. This implies that firms that do not participate in international markets are likely increasing their short-term financing liabilities.

The evidence from this paper suggests some policy lessons related to the development and regulation of domestic financial markets. First, the results suggest that the domestic financial sector plays an important role. This sector needs to provide adequate financing to firms unable to obtain foreign funding. As a consequence, policies that help to consolidate a mature domestic financial system indirectly favor the development of local firms, through the provision of financing alternatives. This implication is confirmed by the fact that countries with deeper domestic financial markets are less affected by financial liberalization policies.

A second policy lesson is related to the prudential regulation of the domestic financial sector. Although previous studies suggest that financial liberalization may drive the economy to overborrowing, the results show that debt-equity ratios do not tend to increase after financial liberalization. However, the data also show that there is a shift of the maturity structure to the short term. Some authors argue that the maturity structure of debt played a crucial role in recent crises. Therefore, it may be important that liberalization policies be accompanied by strong prudential regulation in the financial sector, to prevent a mismatch between the maturity of assets and liabilities.

This paper presented a first step to understanding the effects of financial integration on financing choices. However, this paper opened new questions for future research. First, we showed that firms with access to international financial markets expand their financing opportunities. It would be worthwhile to explicitly test what happens to firms confined to domestic financial markets, when large firms migrate to global markets. Are there "crowding in" effects? Do firms that obtain external financing expand the financing opportunities for firms that rely on domestic markets? Second, it would be interesting to investigate how the financing choices of the public sector affect the financing opportunities of firms with and without access to international capital markets. Third, it seems important to understand what determines access to international financial markets. Fourth, it would be worth studying the effects of globalization on firms' growth, investment decisions, and value. These interesting questions were beyond the scope of the present paper, but this type of data set would allow us to pursue further research in this direction.

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Appendix 1: The Case of Argentina

This appendix studies in detail the case of Argentina. This case is worth studying due to a number of reasons. First, Argentina underwent a sharp process of financial liberalization during the early 1990s. Second, Argentina is under a currency board system since 1991, with assets and liabilities legally held both in peso and U.S. dollars. Dollar liabilities represent a very large proportion of total liabilities, implying a high degree of dollarization. Third, some Argentine firms became rapidly integrated with world financial markets. Fourth, Argentina suffered the spillover effects of the Mexican, Asian, and Russian crises. Fifth, the Argentine financial system consolidated during the mid-1990s with a strong participation of foreign banks. Sixth, microeconomic data on Argentine corporations was not studied before in the literature. Seventh, unlike the other countries in our sample, there is information on debt currency denomination of Argentine firms.

To study Argentina, we follow the same methodology used for the rest of the paper. The results for Argentina are presented in the appendix tables. They can be summarized as follows.

Firm Specific Characteristics and Financial structure:

The evidence suggests that larger firms increase their leverage. This contrasts with the East Asian experience, which suggests that larger firms increase long-term debt and reduce short-term financing. The data also show that within a given firm, changes in size are positively correlated with increases in short-term financing. Both in East Asia and Latin America, the data suggest that increases in firms' assets reduce short-term debt. Finally, larger firms extend the maturity structure of their liabilities. The experience of

Argentina is consistent with emerging economies in general and with the previous literature. Larger firms have better access to credit markets, particularly to long-term debt.

Firms with a large proportion of net fixed assets reduce leverage by decreasing both short-term and long-term debt. This effect is not significant within firms. In this regard, the behavior of firms in Argentina is more similar to the one of East Asian firms. In other Latin American countries, firms with a higher proportion of fixed assets reduce short-term debt. They do not reduce long-term financing. The effects on maturity structure is not clear, so it is hard to argue if firms in Argentina match the maturity of assets and liabilities

Higher profits reduce leverage in Argentina. The relationship holds both within firms and between firms. More profitable firms increase internal financing. These results are compatible with the experience in other emerging economies.

The results of currency debt denomination are very interesting.[21] The most important result is that a higher proportion of peso denominated debt is associated with a shorter debt maturity structure. This result is statistically significant in the OLS, *within* and IV regressions. The findings are consistent with the fact that the Argentine economy has undergone through a long and extreme inflationary process during the 1980s, which lead to a phenomenon dubbed "cortoplacismo." This is associated to situations in which markets for long-term, domestic-currency contracts tend to become thin and, in some cases, even

[21] Note that since data for debt currency denomination restricts the sample significantly, we only included this variable in the regression that we expected a meaningful effect.

disappear.[22] The data suggest that allowing agents to legally hold assets and liabilities in U.S. dollars has lengthened the maturity structure of debt in Argentine firms.[23]

Access to International Markets:

There is some evidence that access to international bond markets increases long-term financing, extending the maturity structure of debt. This is consistent with the evidence for other emerging economies.

The financial sector consolidation and financial liberalization in Argentina took place through a strong participation of foreign banks. The latter replaced, in many cases, domestic financial intermediaries. These new international banks have probably not provided credit under conditions similar to the ones offered by international capital markets. Therefore, firms still benefit from accessing foreign bond markets. The data suggest that letting international financial agents to operate in domestic markets does not seem to be equivalent to letting firms access international capital markets directly.

Financial Liberalization and Crises:

As in East Asia, financial liberalization seems to reduce leverage in general. In the Argentine case, there is some evidence that both short-term and long-term debt decrease. The maturity structure shifts towards the short-term in Argentina. This is consistent with the experience of other emerging economies. The Mexican crisis shortens the maturity structure of debt in Argentina, in contrast with the experience of other Latin American countries.

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[22] See, for example, Heymann and Leijonhufvud (1995) and Neumeyer (1998).

[23] Note that the basic results do not contain the variable on currency debt denomination. A reduced number of firms provide data for this variable. Therefore, we only include the currency debt denomination as additional results.

Appendix 2: Number of Firms and Periods Available for Each Country

Country	Period	Number of Firms
Argentina	1988-1999	73
Brazil	1985-1998	264
Indonesia	1989-1998	185
Malaysia	1983-1998	561
Mexico	1981-1998	202
South Korea	1980-1998	410
Thailand	1980-1999	278

Appendix 3: Literature Review

Corporate Finance:

There is a vast literature in corporate finance that focuses on the financial structure of firms. The seminal article by Modigliani and Miller (1958) shows that the value of firms is independent to its financial structure. This implies a complete dichotomization of real and financial decisions. The assumptions made by Modigliani and Miller induced a large amount of work to understand the characteristics of firms' financing choices. Three fundamental decisions determine financing choices: (a) internal vs. external financing, (b) debt vs. equity financing, and (c) short-term vs. long-term debt (maturity structure of debt).

Most explanations for the capital structure of firms have focused on agency costs of financing.[24] They emphasize the potential conflict of interest between investors holding different types of securities. Within agency costs, we can distinguish two approaches to the problem. One emphasizes managerial issues and the other asymmetric information. Both approaches suggest that certain firm characteristics are important in order to understand financial structure.

The managerial approach concentrates on the conflicting objectives that the separation between ownership and management may create within the firm.[25] This separation may induce discretionary behavior on the part of managers, which is difficult to control by shareholders/owners. Professional managers may want to avoid external financing, which would subject them to the discipline of capital markets. An important firm

[24] We do not intend to offer here an exhaustive exposition of the different theories on financing choices of firms. We just want to provide a general description of the ideas that motivated our work.
[25] See, for example, Jensen and Meckling 1977.

characteristic related to managerial considerations is a measure of profits, given that it may account for the firm's ability to generate capital internally.

The asymmetric information approach focuses on two different conflicts of interest: (i) between inside and outside investors and (ii) between bondholders and equityholders. Within the first class of conflict, the work by Myers and Majluf (1984) shows that equity may be under-priced, when outsiders are uninformed relative to insiders. Myers (1984) refers to this as the 'pecking order' theory of financing. Namely, firms intend first to finance investment internally. Then, they move to low risk debt and, as a last resort, to equity. Here, again, a measure of profit would be a relevant firm characteristic.

The work by Diamond (1991a, 1991b) also focuses on insider/outsider relationships in his study of the determinants of debt maturity. Diamond stresses a trade-off between firms' good ratings (which may bias them towards the short-term) and liquidity risk (creating incentives to contract long-term debt).

Regarding the conflict between bondholders and equityholders, Hart (1993) emphasizes that as leverage increases, equityholders have incentives to siphon funds from the firm. They will appropriate all these funds, while the consequent reduction in the value of the firms will be shared with the bondholders. One key firm characteristic related to this problem is its asset structure. A greater proportion of specific capital assets (fixed assets) can potentially reduce bondholders' risk (and encourage debt financing), due to the fact that it allows firms to issue secure debt.

The asset structure can also affect debt maturity, though for reasons not related to agency problems. Morris (1976) suggests that firms intend to match the maturity of assets and liabilities. A debt maturity shorter than asset life increases the risk of being illiquid

when payments come due. On the other hand, a debt maturity longer than asset life may create problems of finding new assets to support debt service.[26] Finally, another firm characteristic not suggested in the literature on agency cost is size. As argued by Demirgüç-Kunt and Maksimovic (1994), firm size may be relevant for financial structure, because access to financial markets may be a function of size.

The empirical literature on financial structure in developing countries emphasizes the influence of firms' characteristics, institutional factors, and the development of financial markets on the financing choices of firms. Aivazian, Booth, Demirgüç-Kunt, and Maksimovic (1999) use a firm-level database to study whether the capital structure theory is relevant for developing countries with different institutional characteristics.[27] They study capital structure in ten developing countries and focus on three main issues. First, they study the possibility that corporate leverage decisions differ between developed and developing countries. Second, they analyze the factors that affect cross-sectional variability within each country. Finally, they examine the possibility that capital structure models add insights to just knowing the nationality of the company. They focus on book and market debt ratios.[28] They regress these ratios against: (a) firms characteristics (tax rates, assets tangibility, business risk, size, returns on assets, and market to book ratios), (b) dummy variables for the different countries, and (c) aggregate financial indicators for each country (for cross country regressions).

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[26] See also Caprio and Demirgüç-Kunt (1997).

[27] There exist some case studies. Jaramillo and Schiantarelli (1996) study the case of Ecuador, Schiantarelli and Srivastava (1996) and Samuel (1996) cover the case of India, while Gallego and Loayza (2000) analyze the case of Chile.

[28] They focus on three different ratios: (1) the total book debt ratio, defined as total liabilities divided by total liabilities plus net worth, (2) the long book debt ratios, defined as long-term liabilities divided by long-term liabilities plus net worth, and (3) the long market debt ratio, by substituting the average equity market value for net worth.

The finding by Aivazian, Booth, Demirgüç-Kunt, and Maksimovic can be summarized in three basic points. First, financial structure in developing and developed countries is affected by the same factors. The only difference is that firms in developing countries have less long-term debt in relation to their counterparts in developed countries. Second, profitability reduces total debt ratios. Tangibility of assets also reduces total debt, but increases long-term debt ratios. Size also affects debt ratios, though differently across countries. Third, country factors are at least as significant as financial factors to understand financial structure.

Demirgüç-Kunt and Maksimovic (1998a and 1998b) examine debt maturity in thirty countries during the period 1980-1991. Their sample includes developed and developing countries. These papers present cross-country studies and focus on the effects of legal and financial institutions on firm's funding decisions. They analyze short-term and long-term debt and the maturity structure of liabilities. Their main findings can be summarized as follows. First, they show that both an active stock market and a well-developed legal system facilitate growth of firms and access to external funding. Second, firms in developed countries have more long-term debt and a greater proportion of their total debt is held as long-term debt. Third, large firms in countries with more effective legal systems have more long-term debt, relative to assets. Their debt is of longer maturity. Fourth, in countries with active stock markets, large firms have more long-term debt and debt of longer maturity. In countries with a large banking sector, there is some evidence that small firms have less short-term debt and their debt is of longer maturity. Fifth, high ratios of fixed assets to total assets are positively related to long-term debt.

Financial Structure:

The literature on financial structure discusses the characteristics of bank-based vis-à-vis market-based economic systems. In bank-based systems, banks provide most of the credit to the economy. In market-based systems, firms raise funds in capital markets (bond and equity markets).

When comparing bank-based and market-based systems, a key issue is related to the trade off between liquidity of financial instruments and control of debtors. Highly liquid security markets reduce incentives for traders to control the behavior of managers. Bhide (1993) argues that corporate bonds, which usually do not contain provisions for inside monitoring, can be freely traded in liquid markets. This liquidity allows bondholders to 'penalize' bad management. Whereas, unsecured business loans require banks to control the activities and management of borrowers, implying the costly collection of inside information. This process prevents the liquid trading of bank loans. However, one potential advantage of inside monitoring is the development of long-term relationships between borrowers and lenders. This could extend the maturity structure of liabilities in relation to market-based economies.

Stage financing gives a different perspective to the expected maturity structure of debt contracts under bank-based and market-based systems. For example, stage financing might replace long-term loans for a series of short-term contracts in bank-based systems. Stulz (1998) points out that banks are prepared to effectively renew and expand loans, as borrowers offer convincing information about the viability of their projects. Moreover, if a borrower pays her debts, there is no reason to spend resources trying to figure out the true value of the borrower's assets. In this way, Stulz suggests that stage financing is often an

efficient solution to the intermediation problem. Thus, this sort of financing agreements implies that there is no simple relationship between financial structure and maturity of financial instruments.

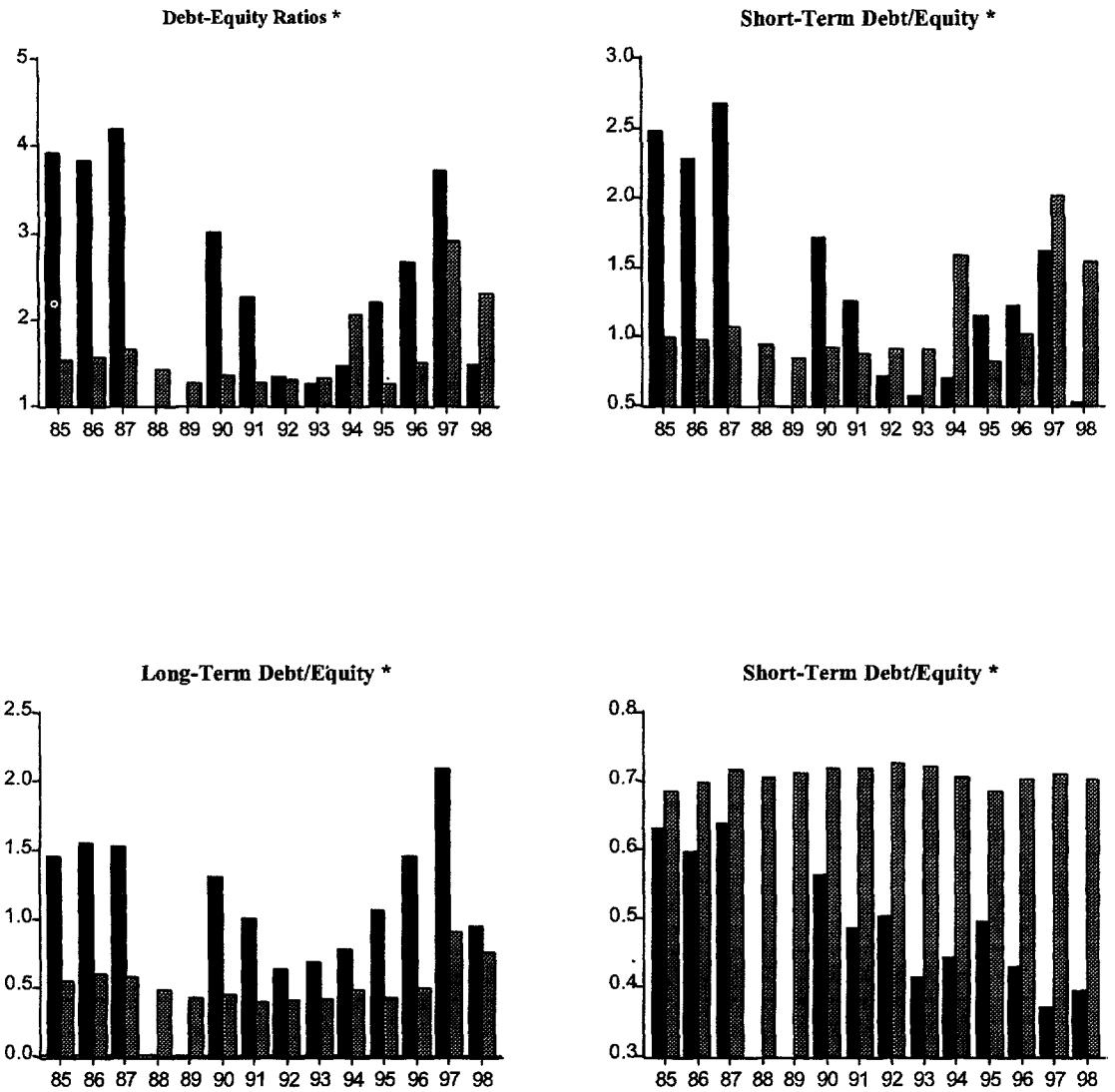
International Finance:

The literature on international finance provides another perspective to the financial structure of firms. This literature emphasizes the consequences of financial liberalization policies on financing choices. For example, McKinnon and Pill (1997) argue that in the transition from economic repression to liberalization many countries engage in excessive foreign borrowing that ultimately proves to be unsustainable. This is due to the interaction between private expectations and domestic economic policy. On the one hand, the private sector could miscalculate the eventual payoffs that a credible reform will bring about. On the other, the existence of deposit insurance leads banks to lend aggressively, giving a falsely optimistic signal to non-bank firms and households. McKinnon and Pill argue that the appropriateness of prudential banking regulation in times of structural change might be hard to assess, so that the effects of moral hazard problems could be crucial in these economies.

On the empirical side, Kaminsky and Reinhart (1999) focus on the links between financial and balance of payments crises. They examine these episodes for a number of industrial and developing countries during the 1970's, 1980's, and 1990's. Remarkably, they find that in 18 out of the 25 banking crises they analyze, the financial sector had been liberalized at most during the previous five years. Moreover, econometric analysis shows that financial liberalization helps to predict banking crises. As McKinnon and Pill,

Kaminsky and Reinhart suggest that, in many instances, liberalization policies take place without an adequate regulatory and supervisory framework.

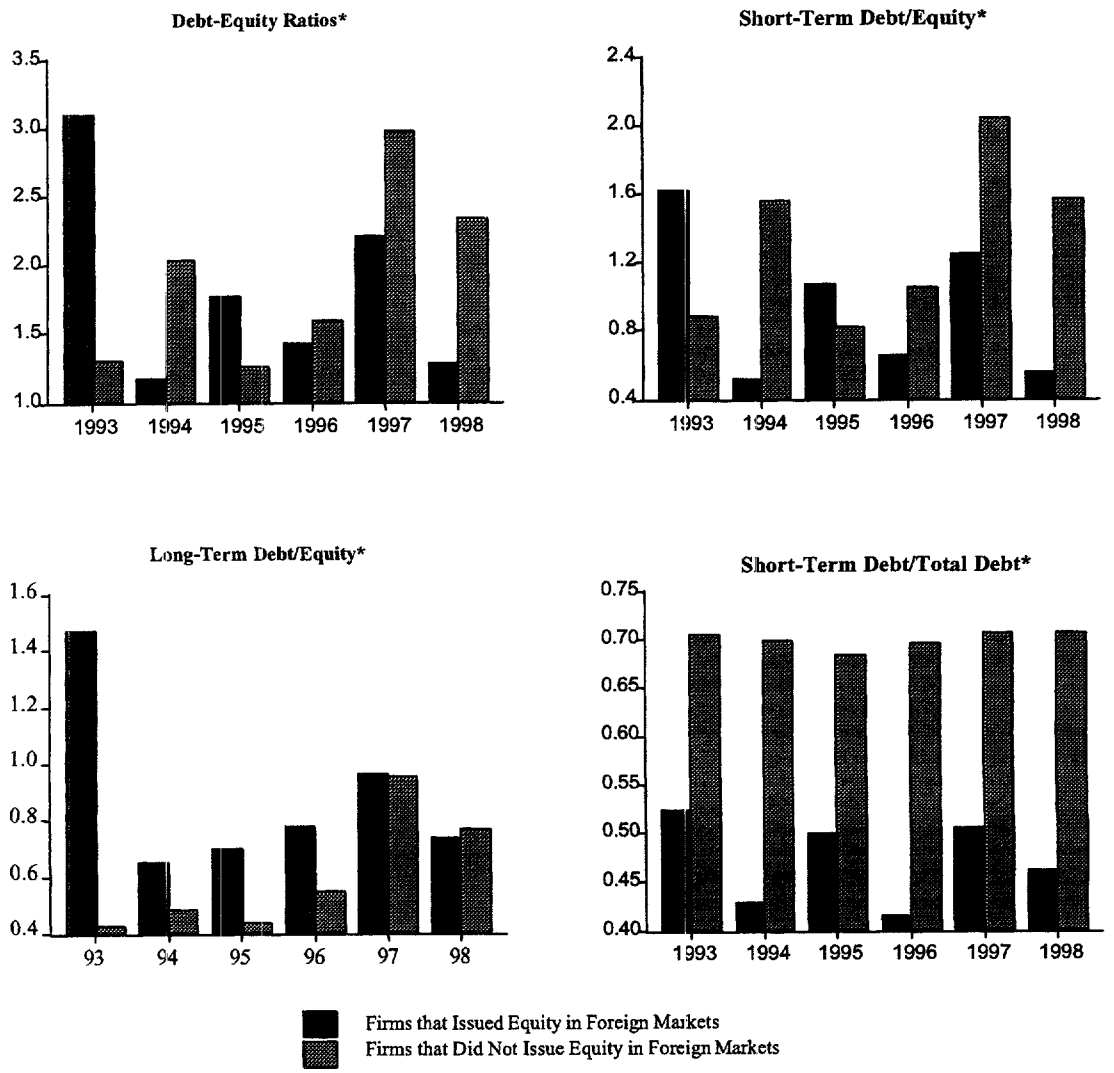
Figure I: Access to Bond Markets



Source: IFC Corporate Finance Database and WordScope

* Ratios are averages across firms

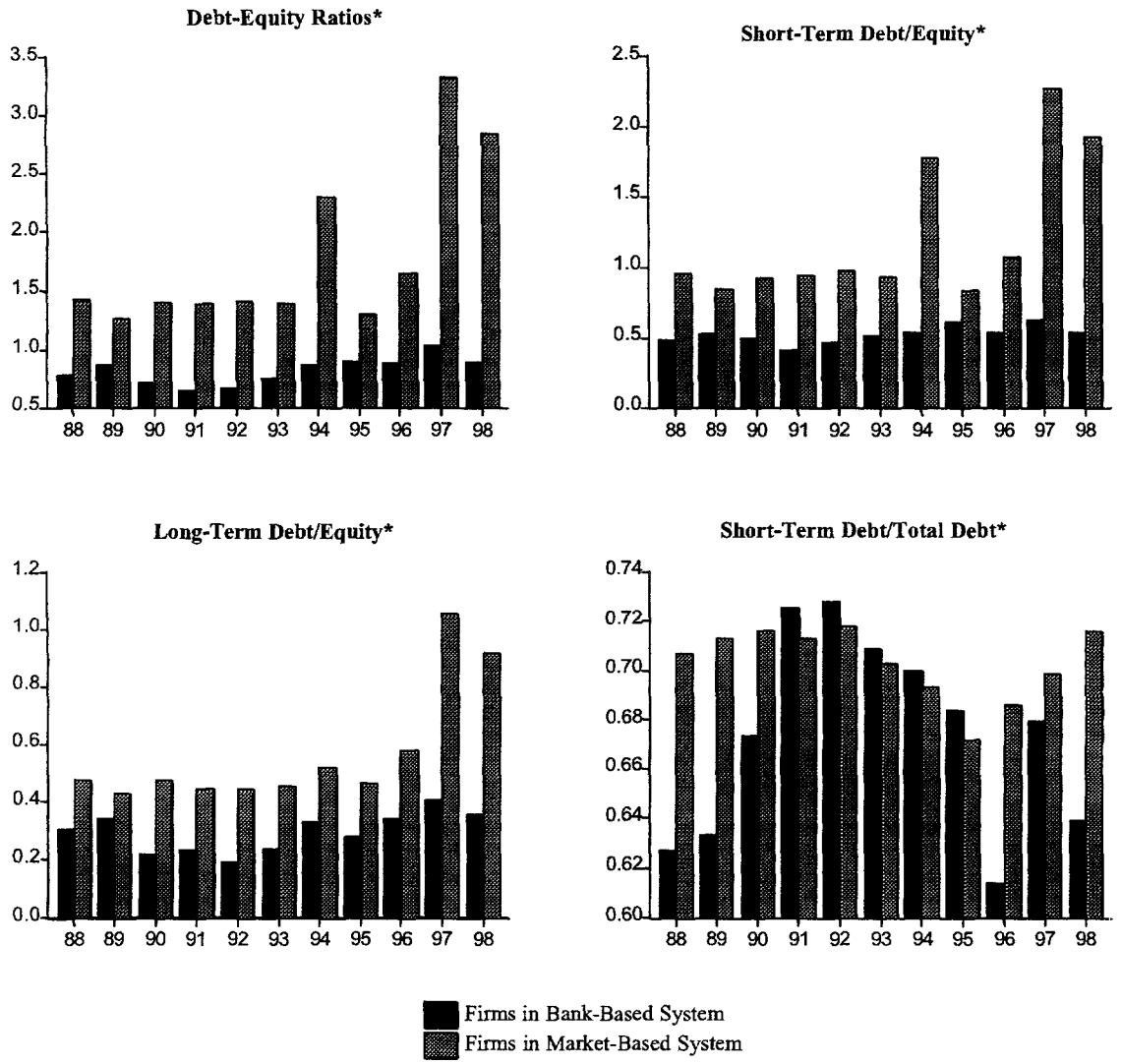
Figure II: Access to International Equity Markets



Source: IFC Corporate Finance Database and WorldScope

* Ratios are averages across firms

Figure III: Bank-Based vs. Market-Based Financial Systems



Source: IFC Corporate Financial Database and WorldScope

* Ratios are averages across firms

Table I: Panel Estimates for Debt-Equity Ratios
Dependent Variable: Total Debt/Equity

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	0.045	-0.051	0.001	0.035	-0.039	-0.077	0.077*	-0.077	0.072
	(1.026)	(-0.955)	(0.022)	(0.725)	(-0.893)	(-0.964)	(1.961)	(-1.024)	(1.101)
Net Fixed Assets/Total Assets	-1.100***	-0.010	-1.717***	-0.749***	-0.635	-0.753**	-1.475***	-0.397	-1.999***
	(-4.755)	(-0.033)	(-6.553)	(-3.444)	(-1.618)	(-2.241)	(-9.289)	(-1.379)	(-7.437)
Profits/Total Assets	-8.174***	-7.593***	-16.162***	-2.702***	-7.955***	-7.921***	-9.069***	-6.847***	-19.802***
	(-3.615)	(-2.648)	(-4.843)	(-8.387)	(-5.451)	(-5.522)	(-7.134)	(-3.814)	(-3.986)
Tradable Producers	-0.167		0.132	-0.182		-0.277	-0.473***		-0.113
	(-0.660)		(0.405)	(-1.516)		(-1.532)	(-3.899)		(-0.473)
Access:									
Access to Int'l Bond Markets	0.384**	0.063	1.396**	0.197**	0.089	1.056***	0.125	0.136	-0.554
	(2.512)	(0.444)	(2.350)	(1.992)	(1.580)	(3.524)	(0.798)	(1.064)	(-1.357)
Access to Int'l Equity Markets	0.000	0.000	0.000*	0.719***	0.143	0.875	0.000	0.000	0.000*
	(1.424)	(1.018)	(1.664)	(3.082)	(0.827)	(1.160)	(1.437)	(0.969)	(1.763)
Financial Liberalization and Crises:									
Financial Liberalization	-0.684**	-0.499*	-0.627	-0.349	0.295	-0.249	-0.847***	-0.752***	-0.444
	(-2.263)	(-1.961)	(-1.489)	(-0.972)	(0.820)	(-0.438)	(-3.797)	(-3.090)	(-1.466)
Mexican Crisis - 1995	-0.238	-0.071	-0.497	0.088	0.127**	0.133	0.089	0.119**	0.016
	(-0.981)	(-0.558)	(-1.097)	(1.305)	(2.166)	(1.245)	(1.205)	(2.066)	(0.122)
Asian Crisis - 1997	1.193***	1.176**	0.880	0.300*	0.261**	0.351*	0.744***	0.901***	0.676***
	(2.989)	(2.033)	(1.585)	(1.881)	(1.994)	(1.928)	(4.152)	(5.138)	(3.190)
Asian Crisis - 1998	1.133**	1.293***	0.728	0.299**	0.234***	0.466***	0.697	0.815*	0.096
	(2.480)	(3.281)	(1.470)	(2.426)	(2.614)	(2.642)	(1.544)	(1.870)	(0.368)
Country Effects:									
Argentina	-1.627***		-2.118***	-0.080		-0.837			
	(-3.074)		(-2.990)	(-0.194)		(-1.265)			
Brazil	-1.670***		-2.209***	-0.183		-1.011**			
	(-2.993)		(-2.839)	(-0.678)		(-2.239)			
Indonesia	-0.643**		-0.410				-0.179		0.233
	(-2.045)		(-0.636)				(-1.234)		(0.729)
South Korea	0.609		0.070				0.981***		0.683**
	(1.414)		(0.098)				(4.118)		(2.230)
Malaysia	-1.280***		-1.643***				-0.736***		-0.539**
	(-2.892)		(-2.602)				(-3.912)		(-2.012)
Mexico	-1.455***		-1.631**						
	(-3.509)		(-2.203)						
C	4.174***		5.088***	1.865***		3.397***	4.153***		3.868***
	(10.877)		(7.761)	(7.118)		(6.655)	(7.957)		(5.670)
Adjusted R-Squared	0.040	0.157	0.030	0.072	0.478	0.051	0.251	0.497	0.201
Fixed Effects		2.065***			6.824***			4.823***	
Chi-Hausman		0.095			1.291			14.661**	
Number of Firms	799	799	799	238	238	238	527	527	527
Number of Observations	6137	6137	4442	1785	1785	1253	4074	4074	3003

Robust standard errors-White correction for heteroskedasticity. Thailand is the base country. T-statistics are in parenthesis.
*,**,*** indicate 10,5,1, percent level of significance, respectively.
Instrumental variable estimation (IV): Instruments are lagged explanatory variables of Firms' Characteristics (except the variable Tradable Producers), lagged values of the variable Access to Int'l Equity Markets, and an indicator of each country's access to international bond markets.

Table II: Panel Estimates for Short Term Debt
Dependent Variable: Short-Term Debt/Equity

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	-0.064*	-0.066	-0.121**	-0.012	-0.029**	-0.092***	-0.065**	-0.096*	-0.084
	(-1.695)	(-1.437)	(-2.254)	(-0.860)	(-2.196)	(-3.679)	(-2.267)	(-1.703)	(-1.528)
Net Fixed Assets/Total Assets	-0.951***	0.034	-1.363***	-0.744***	-0.408*	-0.768***	-1.235***	-0.324	-1.462***
	(-4.682)	(0.133)	(-6.611)	(-4.362)	(-1.807)	(-5.571)	(-10.975)	(-1.600)	(-7.127)
Profits/Total Assets	-6.427***	-6.187**	-12.697***	-1.397***	-0.967***	-4.150***	-6.142***	-4.778***	-14.322***
	(-3.016)	(-2.279)	(-4.024)	(-7.517)	(-5.034)	(-5.650)	(-5.801)	(-3.237)	(-3.269)
Tradable Producers	0.106		0.388	-0.107		-0.090	-0.176**		0.132
	(0.460)		(1.282)	(-1.419)		(-0.977)	(-1.975)		(0.674)
Access:									
Access to Int'l Bond Markets	0.061	-0.137	0.808	0.043	-0.053	0.611***	-0.131	-0.092	-0.740**
	(0.617)	(-1.133)	(1.471)	(0.850)	(-1.410)	(3.248)	(-1.391)	(-1.111)	(-2.422)
Access to Int'l Equity Markets	0.000*	0.000	0.000	0.287*	0.049	0.497	0.000*	0.000	0.000**
	(1.724)	(1.134)	(1.567)	(1.704)	(0.543)	(1.029)	(1.942)	(1.061)	(2.038)
Financial Liberalization and Crises:									
Financial Liberalization	-0.156	-0.361*	-0.136	-0.020	0.172*	0.040	-0.443***	-0.530***	-0.140
	(-0.626)	(-1.964)	(-0.382)	(-0.236)	(1.896)	(0.291)	(-2.792)	(-2.858)	(-0.613)
Mexican Crisis - 1995	-0.248	-0.106	-0.448	0.067	0.068*	0.135**	0.045	0.056	-0.017
	(-1.083)	(-0.902)	(-1.043)	(1.366)	(1.734)	(2.048)	(0.818)	(1.522)	(-0.171)
Asian Crisis - 1997	0.729**	0.656	0.468	0.122	0.127**	0.136	0.388***	0.455***	0.325**
	(2.012)	(1.216)	(0.903)	(1.572)	(2.418)	(1.591)	(3.778)	(4.897)	(2.466)
Asian Crisis - 1998	0.659*	0.856***	0.458	0.132	0.088*	0.241**	0.133	0.194	-0.085
	(1.733)	(2.673)	(0.972)	(1.498)	(1.653)	(2.090)	(0.841)	(1.352)	(-0.430)
Country Effects:									
Argentina	-1.419***		-1.875***	-0.140		-0.693***			
	(-2.829)		(-2.783)	(-1.250)		(-3.521)			
Brazil	-1.412***		-1.950***	-0.091		-0.683***			
	(-2.684)		(-2.661)	(-0.923)		(-4.022)			
Indonesia	-0.366		-0.172				0.105		0.515*
	(-1.250)		(-0.282)				(1.060)		(1.791)
South Korea	0.448		0.028				0.824***		0.639***
	(1.168)		(0.043)				(5.132)		(2.866)
Malaysia	-1.090***		-1.512**				-0.786***		-0.695***
	(-2.632)		(-2.564)				(-5.686)		(-3.315)
Mexico	-0.881**		-0.970						
	(-2.425)		(-1.430)						
C	3.147***		4.100***	1.238***		2.273***	3.593***		3.428***
	(10.916)		(7.668)	(9.000)		(8.900)	(8.968)		(6.447)
Adjusted R-Squared	0.022	0.133	0.017	0.178	0.557	0.135	0.188	0.437	0.137
Fixed Effects		1.980***			7.431***			4.467***	
Chi-Hausman		0.250			4.031			321***	
Number of Firms	799	799	799	238	238	238	526	526	526
Number of Observations	6137	6137	4442	1785	1785	1253	4116	4116	3033

Robust standard errors-White correction for heteroskedasticity. Thailand is the base country. T-statistics are in parenthesis.
*,**,*** indicate 10,5,1, percent level of significance, respectively.
Instrumental variable estimation (IV): Instruments are lagged explanatory variables of Firms' Characteristics (except the variable Tradable Producers), lagged values of the variable Access to Int'l Equity Markets, and an indicator of each country's access to international bond markets.

Table III: Panel Estimates for Long-Term Debt
Dependent Variable: Long-Term Debt/Equity

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	0.109***	0.015	0.123***	0.047	-0.009	0.015	0.145***	0.014	0.169***
	(6.549)	(0.789)	(5.581)	(1.217)	(-0.284)	(0.247)	(7.587)	(0.376)	(7.125)
Net Fixed Assets/Total Assets	-0.149**	-0.044	-0.354***	-0.444	-0.227	0.015	-0.236***	-0.064	-0.556***
	(-2.097)	(-0.433)	(-2.933)	(-0.039)	(-1.171)	(0.062)	(-2.860)	(-0.488)	(-4.231)
Profits/Total Assets	-1.747***	-1.406***	-3.465***	-1.305***	-0.988***	-3.771***	-2.762***	-1.939***	-4.479***
	(-7.784)	(-5.056)	(-7.017)	(-6.279)	(-4.236)	(-3.769)	(-8.003)	(-3.167)	(-6.327)
Tradable Producers	-0.273***		-0.256***	-0.075		-0.187	-0.324***		-0.311***
	(-4.228)		(-3.484)	(-0.865)		(-1.411)	(-4.510)		(-3.447)
Access:									
Access to Int'l Bond Markets	0.323***	0.200***	0.589***	0.153**	0.143***	0.445**	0.249***	0.233***	0.139
	(4.127)	(4.179)	(4.049)	(2.090)	(3.538)	(2.538)	(2.774)	(3.334)	(0.683)
Access to Int'l Equity Markets	0.000	0.000	0.000	0.432**	0.094	0.377	0.000	0.000	0.000
	(0.990)	(0.800)	(1.635)	(2.464)	(0.872)	(0.840)	(0.691)	(0.817)	(1.190)
Financial Liberalization and Crises:									
Financial Liberalization	-0.528***	-0.138	-0.491***	-0.329	0.123	-0.290	-0.401***	-0.199*	-0.337***
	(-4.116)	(-1.010)	(-2.943)	(-1.126)	(0.432)	(-0.628)	(-3.832)	(-1.710)	(-2.703)
Mexican Crisis - 1995	0.010	0.034	-0.048	0.021	0.059*	-0.002	0.054	0.070**	0.038
	(0.356)	(1.289)	(-1.270)	(0.502)	(1.667)	(-0.034)	(1.562)	(2.070)	(0.820)
Asian Crisis - 1997	0.464***	0.520***	0.412***	0.178	0.134	0.215	0.378***	0.464***	0.390***
	(4.559)	(5.524)	(4.023)	(1.448)	(1.236)	(1.540)	(3.534)	(4.367)	(3.341)
Asian Crisis - 1998	0.474***	0.437***	0.270***	0.167***	0.146***	0.225***	0.616*	0.652**	0.284**
	(2.725)	(2.759)	(3.415)	(2.812)	(2.699)	(2.773)	(1.803)	(2.014)	(2.242)
Country Effects:									
Argentina	-0.208***		-0.243***	0.060		-0.143			
	(-3.616)		(-3.442)	(0.186)		(-0.277)			
Brazil	-0.258***		-0.259**	-0.092		-0.327			
	(-3.449)		(-2.336)	(-0.449)		(-0.984)			
Indonesia	-0.283***		-0.238***				-0.269***		-0.278***
	(-4.100)		(-2.728)				(-3.572)		(-3.188)
South Korea	0.161		0.042				0.170		0.044
	(1.243)		(0.257)				(1.379)		(0.315)
Malaysia	-0.190**		-0.130				0.078		0.201*
	(-2.561)		(-1.225)				(0.846)		(1.870)
Mexico	-0.574***		-0.661***						
	(-4.135)		(-3.716)						
C	1.027***		0.988***	0.627***		1.124***	0.537**		0.399
	(5.184)		(3.563)	(3.109)		(3.232)	(2.188)		(1.356)
Adjusted R-Squared	0.166	0.404	0.165	0.043	0.423	0.023	0.210	0.432	0.218
Fixed Effects		4.12**			5.926***			4.104***	
Chi-Hausman		474.090***			3.380			8.598	
Number of Firms	799	799	799	238	238	238	525	525	525
Number of Observations	6137	6137	4442	1785	1785	1253	4018	4018	2971

Robust standard errors-White correction for heteroskedasticity. Thailand is the base country. T-statistics are in parenthesis.

*,**,*** indicate 10,5,1, percent level of significance, respectively.

Instrumental variable estimation (IV): Instruments are lagged explanatory variables of Firms' Characteristics (except the variable Tradable Producers), lagged values of the variable Access to Int'l Equity Markets, and an indicator of each country's access to international bond markets.

Table IV: Panel Estimates for Maturity Structure
Dependent Variable: Short-Term Debt/Total Debt

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	-0.042***	-0.020***	-0.037***	-0.032***	-0.015***	-0.012	-0.051***	-0.036***	-0.044***
	(-15.736)	(-6.762)	(-8.525)	(-6.491)	(-3.246)	(-1.198)	(-14.340)	(-6.297)	(-9.800)
Net Fixed Assets/Total Assets	-0.158***	-0.078***	-0.180***	-0.231***	-0.097*	-0.340***	-0.136***	-0.021	-0.149***
	(-9.362)	(-3.294)	(-7.887)	(-4.088)	(-1.906)	(-6.476)	(-7.522)	(-0.707)	(-5.686)
Profits/Total Assets	0.187***	0.180***	0.222*	0.131**	0.207***	0.177	0.347***	0.256***	0.311**
	(5.101)	(4.624)	(1.950)	(2.254)	(3.396)	(0.653)	(7.737)	(4.815)	(2.566)
Tradable Producers	0.076***		0.076***	0.047		0.044	0.067***		0.077***
	(7.714)		(6.424)	(1.355)		(0.830)	(6.150)		(5.688)
Access:									
Access to Int'l Bond Markets	-0.155***	-0.088***	-0.325***	-0.175***	-0.091***	-0.444***	-0.125***	-0.073***	-0.248***
	(-9.059)	(-7.003)	(-8.036)	(-6.780)	(-4.576)	(-6.084)	(-5.026)	(-4.362)	(-4.366)
Access to Int'l Equity Markets	0.000***	0.000	0.000**	-0.098*	-0.058	0.284	0.000***	0.000	0.000*
	(4.092)	(0.369)	(1.993)	(-1.698)	(-1.217)	(1.267)	(4.726)	(0.414)	(1.916)
Financial Liberalization and Crises:									
Financial Liberalization	0.084***	0.026*	0.030	0.054*	0.011	-0.062	0.079***	0.045***	0.051**
	(5.517)	(1.694)	(1.592)	(1.944)	(0.410)	(-1.295)	(4.525)	(2.619)	(2.455)
Mexican Crisis - 1995	-0.022**	-0.023***	-0.017	-0.015	-0.028	-0.024	-0.022*	-0.018**	-0.030*
	(-2.013)	(-3.039)	(-1.323)	(-0.672)	(-1.638)	(-0.900)	(-1.715)	(-2.067)	(-1.763)
Asian Crisis - 1997	-0.018	-0.017*	-0.024*	-0.050*	-0.039*	-0.072**	-0.015	-0.017	-0.017
	(-1.378)	(-1.879)	(-1.685)	(-1.732)	(-1.855)	(-2.011)	(-0.957)	(-1.580)	(-1.031)
Asian Crisis -1998	-0.035**	-0.025**	-0.027	-0.059*	-0.072***	-0.079**	-0.037	-0.033**	-0.033
	(-2.061)	(-1.968)	(-1.526)	(-1.925)	(-3.139)	(-2.158)	(-1.491)	(-2.169)	(-1.257)
Country Effects:									
Argentina	-0.092***		-0.072***	-0.107***		0.016			
	(-6.998)		(-4.123)	(-2.846)		(0.214)			
Brazil	-0.118***		-0.125***	-0.126***		-0.036			
	(-8.592)		(-6.947)	(-3.480)		(-0.527)			
Indonesia	0.020		0.016				0.055***		0.060***
	(1.372)		(0.758)				(3.671)		(2.973)
South Korea	0.001		-0.045**				0.023		-0.007
	(0.085)		(-2.098)				(1.266)		(-0.328)
Malaysia	-0.071***		-0.093***				-0.102***		-0.093***
	(-5.580)		(-5.246)				(-6.006)		(-4.345)
Mexico	0.081***		0.078***						
	(3.909)		(2.850)						
C	0.952***		1.030***	1.024***		1.077***	1.031***		1.026***
	(32.736)		(26.115)	(17.423)		(10.366)	(26.347)		(21.419)
Adjusted R-Squared	0.228	0.601	0.218	0.202	0.538	0.152	0.277	0.645	0.273
Fixed Effects		8.348***			6.438***			9.327***	
Chi-Hausman		22.249***			39.422***			21.092***	
Number of Firms	799	799	799	238	238	238	526	526	526
Number of Observations	6137	6137	4442	1785	1785	1253	4116	4116	3033

Robust standard errors-White correction for heteroskedasticity. Thailand is the base country. T-statistics are in parenthesis.

*,**,*** indicate 10,5,1, percent level of significance, respectively.

Instrumental variable estimation (IV): Instruments are lagged explanatory variables of Firms' Characteristics (except the variable Tradable Producers), lagged values of the variable Access to Int'l Equity Markets, and an indicator of each country's access to international bond markets.

Table V: Panel Estimates for Internal Financing
Dependent Variable: Retained Earnings/Total Debt

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	-0.107	-0.105	0.021	-1.483	-0.886	-1901.780	-0.027***	0.001	-0.041***
	(-1.321)	(-1.434)	(0.365)	(-1.163)	(-1.467)	(-0.012)	(-3.814)	(0.062)	(-4.561)
Net Fixed Assets/Total Assets	-0.517	0.190	-1.383	-0.096	3.413	3717.470	-0.053	-0.123	0.005
	(-1.500)	(0.821)	(-1.348)	(-0.074)	(1.433)	(0.012)	(-1.448)	(-1.466)	(0.127)
Profits/Total Assets	5.442***	2.118	13.478	10.608**	1.957	3312.150	2.444***	2.482***	2.471***
	(3.683)	(1.439)	(1.468)	(2.148)	(0.703)	(0.012)	(12.969)	(8.703)	(6.705)
Tradable Producers	0.147		0.041	1.439		644.292	0.026***		0.035**
	(0.916)		(0.381)	(0.882)		(0.012)	(2.801)		(2.451)
Access:									
Access to Int'l Bond Markets	-0.489	0.196	-2.522	-0.497	0.756	2654.600	-0.008	-0.021***	0.056
	(-1.062)	(1.302)	(-1.265)	(-0.606)	(1.137)	(0.012)	(-0.590)	(-3.086)	(1.443)
Access to Int'l Equity Markets	0.000	0.000	0.000	-2.212	0.310	540.150	-0.028	0.000	0.000
	(0.127)	(-0.777)	(1.022)	(-0.775)	(0.104)	(0.012)	(-0.732)	(-1.342)	(0.679)
Financial Liberalization and Crises:									
Financial Liberalization	0.220*	0.132	0.046	10.339	4.222	13240.700	0.117***	0.085***	0.143***
	(1.738)	(1.347)	(0.252)	(1.221)	(1.599)	(0.012)	(3.752)	(3.068)	(4.281)
Mexican Crisis - 1995	1.487	1.431	1.741	7.308	8.297	1634.160	0.010	0.009	0.007
	(1.063)	(1.364)	(1.006)	(1.082)	(1.363)	(0.012)	(0.440)	(0.472)	(0.261)
Asian Crisis - 1997	-0.093	0.284	-0.239	-1.623	0.056	685.088	0.023	0.018	0.025
	(-0.541)	(0.963)	(-0.985)	(-1.037)	(0.036)	(0.012)	(0.750)	(0.603)	(0.724)
Asian Crisis - 1998	-0.062	0.458	-0.340	-0.01	1.292	879.543	0.008	-0.011	0.011
	(-0.279)	(1.483)	(-0.904)	(-0.009)	(1.071)	(0.012)	(0.220)	(-0.328)	(0.283)
Country Effects:									
Argentina	3.605		5.542	-0.319		-5029.750			
	(1.539)		(1.589)	(-0.317)		(-0.012)			
Brazil	0.287***		1.035						
	(2.621)		(1.400)						
Indonesia	0.325***		-0.511				0.362***		0.397***
	(3.555)		(-0.715)				(9.169)		(9.195)
South Korea	0.830*		0.696				0.302***		0.365***
	(1.894)		(1.630)				(8.973)		(9.968)
Malaysia	0.031		0.519				0.058**		0.027
	(0.265)		(1.164)				(2.042)		(0.631)
C	0.087			-9.371			-0.091		
	(0.257)			(-1.138)			(-1.401)		
			-0.613			-12480.600			-0.067
			(-1.065)			(-0.012)			(-0.742)
Adjusted R-Squared	0.010	0.150		0.015	0.147		0.229	0.424	
Fixed Effects		2.265***			2.144***			3.579***	
Chi-Hausman		0.002	0.011		0.026	-0.008		12.211***	0.314
Number of Firms	758	758	758	168	168	168	588	588	588
Number of Observations	5813	5813	4320	1251	1251	930	4456	4456	3249

Robust standard errors-White correction for heteroskedasticity. Thailand is the base country. T-statistics are in parenthesis.

*,**,*** indicate 10,5,1, percent level of significance, respectively.

Instrumental variable estimation (IV): Instruments are lagged explanatory variables of Firms' Characteristics (except the variable Tradable Producers), lagged values of the variable Access to Int'l Equity Markets, and an indicator of each country's access to international bond markets.

Table VI.A: Bank-Based vs. Market-Based Systems (OLS)

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables:	Bank	Market	Bank	Market	Bank	Market	Bank	Market	Bank	Market
Firms' Characteristics:										
Log of Net Fixed Assets	0.122***	0.032	0.020	-0.079*	0.102***	0.111***	-0.058***	-0.039***	-0.264	-0.028***
	(2.902)	(0.628)	(0.810)	(-1.810)	(4.189)	(5.667)	(-6.379)	(-14.378)	(-0.814)	(-5.941)
Net Fixed Assets/Total Assets	-0.634***	-1.278***	-0.474***	-1.145***	-0.159	-0.133	-0.045	-0.185***	-4.455	0.062*
	(-2.720)	(-5.588)	(-2.930)	(-5.846)	(-1.578)	(-1.569)	(-1.341)	(-11.103)	(-1.610)	(1.916)
Profits/Total Assets	-1.791***	-9.539***	-0.989***	-7.625***	-0.802***	-1.913***	0.290***	0.159***	15.583**	2.951***
	(-4.743)	(-3.395)	(-3.558)	(-2.885)	(-4.820)	(-6.864)	(3.672)	(4.012)	(1.973)	(17.672)
Tradable Producers	-0.011	-0.112	0.052	0.183	-0.064	-0.295***	0.092**	0.077***	0.805	0.019**
	(-0.082)	(-0.377)	(0.656)	(0.665)	(-0.677)	(-4.220)	(2.509)	(7.448)	(0.523)	(2.040)
Access:										
Access to Int'l Bond Markets	0.220**	0.329	-0.011	-0.048	0.231***	0.377***	-0.139***	-0.163***	-0.540	0.019*
	(2.070)	(1.553)	(-0.147)	(-0.354)	(3.552)	(3.494)	(-4.607)	(-7.790)	(-0.635)	(1.846)
Access to Int'l Equity Markets	0.486	0.000	0.412	0.000*	0.075	0.000	-0.041	0.000***	-3.835	-0.039
	(1.597)	(1.520)	(1.564)	(1.924)	(0.556)	(0.943)	(-0.621)	(4.041)	(-0.966)	(-1.027)
Financial Liberalization and Crises:										
Financial Liberalization	-0.558**	-0.694**	-0.209	-0.134	-0.349***	-0.560***	0.262***	0.070***	-1.533	0.097***
	(-2.522)	(-2.058)	(-1.320)	(-0.480)	(-3.149)	(-3.935)	(4.413)	(4.473)	(-0.454)	(3.108)
Mexican Crisis - 1995	0.114	-0.351	0.099	-0.361	0.015	0.011	0.014	-0.033***	7.079	-0.356
	(1.172)	(-1.126)	(1.174)	(-1.225)	(0.369)	(0.304)	(0.597)	(-2.641)	(1.064)	(-0.252)
Asian Crisis - 1997	0.295	1.314***	0.141	0.798*	0.154	0.516***	-0.011	-0.021	-2.305	0.031
	(1.436)	(2.728)	(1.371)	(1.816)	(0.990)	(4.420)	(-0.306)	(-1.545)	(-1.215)	(1.043)
Asian Crisis - 1998	0.274**	1.343**	0.100	0.763	0.174**	0.580**	-0.050	-0.032	-0.548	0.013
	(2.093)	(2.094)	(1.203)	(1.422)	(2.428)	(2.400)	(-1.648)	(-1.555)	(-0.408)	(0.340)
Country Effects:										
Argentina	-0.114		-0.298**		0.184*		-0.194***		5.282	
	(-0.665)		(-2.538)		(1.963)		(-4.887)		(1.414)	
Brazil		-1.701***		-1.437**		-0.264***		-0.112***		0.144***
		(-2.875)		(-2.574)		(-3.395)		(-8.166)		(5.446)
South Korea		0.583		0.436		0.147		-0.018		0.302***
		(1.277)		(1.076)		(1.031)		(-1.096)		(9.958)
Malaysia		-1.338***		-1.138***		-0.200***		-0.069***		0.029
		(-2.928)		(-2.659)		(-2.643)		(-5.350)		(1.149)
Mexico		-1.386***		-0.799**		-0.587***		0.064***		
		(-3.214)		(-2.130)		(-3.860)		(3.040)		
C	1.437**	4.406***	1.271***	3.320***	0.165	1.086***	0.713***	0.965***	4.382	-0.103
	(2.313)	(10.811)	(2.853)	(10.712)	(0.567)	(5.275)	(5.894)	(32.474)	(0.584)	(-1.540)
Adjusted R-Squared	0.120	0.040	0.101	0.022	0.113	0.164	0.205	0.236	0.007	0.341
Fixed Effects										
Chi-Hausman										
Number of Firms	143	656	143	656	143	656	143	656	139	619
Number of Observations	821	5316	821	5316	821	5316	821	5316	740	5073

Robust standard errors-White correction for heteroskedasticity. Indonesia and Thailand are the base country, for bank-based and market based systems respectively. T-statistics are in parenthesis.

Bank-based countries: Argentina and Indonesia. Market-based countries: Brazil, Malaysia, Mexico, South Korea, and Thailand.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Table VI.B: Bank-Based vs. Market-Based Systems (Within)

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables:	**Bank**	**Market**	**Bank**	**Market**	**Bank**	**Market**	**Bank**	**Market**	**Bank**	**Market**
Firms' Characteristics:										
Log of Net Fixed Assets	0.064	-0.063	-0.040	-0.070	0.103	0.007	-0.026*	-0.019***	-0.478	-0.023***
	(0.461)	(-1.104)	(-0.539)	(-1.402)	(1.372)	(0.380)	(-1.954)	(-5.997)	(-1.083)	(-3.118)
Net Fixed Assets/Total Assets	0.148	-0.263	0.083	-0.134	0.065	-0.129	-0.035	-0.097***	-0.372	0.107
	(0.973)	(-0.638)	(0.997)	(-0.395)	(0.680)	(-0.863)	(-1.169)	(-3.138)	(-0.253)	(1.518)
Profits/Total Assets	-2.163***	-8.457**	-1.234***	-6.984**	-0.929***	-1.473***	0.108	0.195***	-6.944	3.117***
	(-4.265)	(-2.484)	(-4.079)	(-2.168)	(-3.157)	(-4.481)	(0.963)	(4.610)	(-0.483)	(17.090)
Access:										
Access to Int'l Bond Markets	0.049	0.079	-0.072	-0.161	0.120**	0.240***	-0.052**	-0.100***	1.081	-0.021**
	(0.649)	(0.413)	(-1.361)	(-0.991)	(1.976)	(3.889)	(-2.175)	(-6.779)	(1.200)	(-2.277)
Access to Int'l Equity Markets	0.045	0.000	0.017	0.000	0.027	0.000	-0.049	0.000	-0.104	0.000
	(0.288)	(1.075)	(0.240)	(1.221)	(0.252)	(0.805)	(-1.082)	(0.492)	(-0.030)	(-1.049)
Financial Liberalization and Crises:										
Financial Liberalization	-0.410	-0.515**	-0.125	-0.400**	-0.285	-0.115	-0.015	0.025	-3.588	0.102***
	(-0.935)	(-2.040)	(-0.547)	(-2.233)	(-1.135)	(-0.820)	(-0.219)	(1.620)	(-0.744)	(2.923)
Mexican Crisis - 1995	0.111	-0.104	0.082	-0.144	0.029	0.040	-0.003	-0.027***	6.477	0.001
	(1.285)	(-0.583)	(1.319)	(-0.874)	(0.656)	(1.204)	(-0.149)	(-3.141)	(1.289)	(0.068)
Asian Crisis - 1997	0.327**	1.323*	0.167***	0.725	0.160	0.598***	-0.028	-0.014	0.142	0.045
	(1.969)	(1.832)	(2.650)	(1.075)	(1.130)	(5.357)	(-1.007)	(-1.507)	(0.082)	(1.570)
Asian Crisis - 1998	0.256**	1.631***	0.099	1.095**	0.157**	0.536**	-0.067***	-0.006	1.535	0.017
	(2.390)	(2.809)	(1.598)	(2.292)	(2.443)	(2.359)	(-2.682)	(-0.394)	(1.048)	(0.507)
Adjusted R-Squared	0.441	0.162	0.563	0.138	0.242	0.410	0.572	0.606	0.083	0.476
Fixed Effects	4.273***	2.179***	7.037***	2.091***	1.969***	4.437***	5.982***	8.814***	1.433***	3.100***
Chi-Hausman	0.302	0.209	0.294	0.417	0.253	525.41***	4.564	16.124***	4.1196**	1.150
Number of Firms	143	656	143	656	143	656	143	656	139	619
Number of Observations	821	5316	821	5316	821	5316	821	5316	740	5073

Robust standard errors-White correction for heteroskedasticity. T-statistics are in parenthesis.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Table VI.C: Bank-Based vs. Market-Based Systems (Instrumental Variables)

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables:	**Bank**	**Market**	**Bank**	**Market**	**Bank**	**Market**	**Bank**	**Market**	**Bank**	**Market**
Firms' Characteristics:										
Log of Net Fixed Assets	0.181***	-0.039	0.032	-0.157**	0.149***	0.118***	-0.056***	-0.034***	0.432	-0.062***
	(2.932)	(-0.508)	(0.880)	(-2.354)	(4.344)	(4.617)	(-4.525)	(-7.201)	(1.103)	(-5.801)
Net Fixed Assets/Total Assets	-1.625***	-1.762***	-0.926***	-1.454***	-0.699***	-0.308**	-0.019	-0.204***	-12.371	0.148***
	(-4.211)	(-5.773)	(-4.419)	(-5.926)	(-2.808)	(-2.314)	(-0.213)	(-8.396)	(-1.528)	(3.166)
Profits/Total Assets	-2.523**	-20.364***	-1.425*	-16.185***	-1.098*	-4.179***	0.249	0.183	37.242	2.245***
	(-2.274)	(-4.613)	(-1.950)	(-3.880)	(-1.880)	(-6.526)	(0.989)	(1.409)	(1.262)	(6.081)
Tradable Producers	-0.030	0.330	0.096	0.577	-0.125	-0.247***	0.100*	0.080***	0.097	0.048***
	(-0.101)	(0.837)	(0.722)	(1.569)	(-0.613)	(-3.094)	(1.716)	(6.421)	(0.048)	(3.142)
Access:										
Access to Int'l Bond Markets	1.273***	0.784	0.552*	0.261	0.722***	0.523***	-0.423***	-0.334***	-10.194	0.155***
	(2.674)	(0.917)	(1.739)	(0.326)	(3.044)	(2.669)	(-4.070)	(-6.578)	(-1.207)	(3.866)
Access to Int'l Equity Markets	0.646	0.000*	0.559	0.000	0.087	0.000	0.312	0.000*	8.083	0.000
	(0.395)	(1.671)	(0.618)	(1.579)	(0.110)	(1.614)	(1.428)	(1.961)	(0.934)	(1.386)
Financial Liberalization and Crises:										
Financial Liberalization	-0.860	-0.542	-0.566	-0.051	-0.294	-0.491***	0.611	0.023	19.411	0.158***
	(-0.892)	(-1.142)	(-0.639)	(-0.124)	(-0.728)	(-2.790)	(1.143)	(1.165)	(1.345)	(4.566)
Mexican Crisis - 1995	0.139	-0.798	0.119	-0.719	0.019	-0.079	0.001	-0.029*	6.137	0.004
	(1.150)	(-1.277)	(1.298)	(-1.212)	(0.350)	(-1.583)	(0.023)	(-1.844)	(1.002)	(0.222)
Asian Crisis - 1997	0.326	0.873	0.145	0.435	0.181	0.438***	-0.018	-0.028*	-4.475	0.029
	(1.465)	(1.293)	(1.355)	(0.688)	(1.093)	(3.734)	(-0.472)	(-1.828)	(-1.510)	(0.883)
Asian Crisis - 1998	0.353**	0.664	0.160	0.392	0.194**	0.272***	-0.051	-0.025	-3.301	0.016
	(2.110)	(0.984)	(1.460)	(0.609)	(2.436)	(2.633)	(-1.484)	(-1.205)	(-1.095)	(0.420)
Country Effects:										
Argentina										
Brazil	0.068	-2.445***	-0.242	-2.142***	0.310**	-0.303***	-0.249**	-0.119***	9.034	0.046
	(0.226)	(-2.896)	(-1.069)	(-2.691)	(2.038)	(-2.600)	(-2.567)	(-6.433)	(1.367)	(1.161)
South Korea		0.040		0.000		0.040		-0.062***		0.411***
		(0.052)		(0.000)		(0.228)		(-2.698)		(10.556)
Malaysia		-1.789***		-1.637***		-0.152		-0.088***		-0.054
		(-2.694)		(-2.637)		(-1.419)		(-4.856)		(-1.291)
Mexico		-1.530*		-0.877		-0.653***		0.062**		
		(-1.941)		(-1.214)		(-3.432)		(2.151)		
C	1.808	5.376***	2.020	4.336***	-0.212	1.039***	-0.041	1.030***	-45.677	0.034
	(0.884)	(7.402)	(1.105)	(7.139)	(-0.240)	(3.692)	(-0.036)	(25.755)	(-1.340)	(0.408)
Adjusted R-Squared	0.074	0.030	0.047	0.017	0.096	0.160	0.196	0.218	-0.003	0.329
Fixed Effects										
Chi-Hausman										
Number of Firms	143	656	143	656	143	656	143	656	139	619
Number of Observations	543	3899	543	3899	543	3899	543	3899	524	3796

Robust standard errors-White correction for heteroskedasticity. Indonesia and Thailand are the base country, for bank-based and market based systems respectively. T-statistics are in parenthesis.

Bank-based countries: Argentina and Indonesia. Market-based countries: Brazil, Malaysia, Mexico, South Korea, and Thailand.

Instruments are lagged explanatory variables on Firms' Characteristics (except the variable Tradable Producers), lagged values of the variable on access to international equity markets, and an indicator of country' access to bond markets.

Appendix Table I: Argentina

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables:	OLS	Within	OLS	Within	OLS	Within	OLS	Within	OLS	Within
Firms' Characteristics:										
Log of Net Fixed Assets	0.263***	0.605***	0.136***	0.355***	0.127***	0.119	-0.088***	-0.299***	-0.356	0.189
	(4.406)	(2.851)	(3.114)	(2.828)	(4.485)	(1.288)	(-2.842)	(-2.884)	(-0.338)	(0.157)
Net Fixed Assets/Total Assets	-1.177***	-0.007	-0.786***	-0.373	-0.398***	0.536	0.070	-0.148	-5.048	6.515
	(-5.188)	(-0.008)	(-4.644)	(-1.153)	(-4.080)	(0.913)	(0.754)	(-0.741)	(-1.029)	(0.939)
Profits/Total Assets	-1.681***	-1.748***	-1.112***	-1.240***	-0.571**	-0.495	-0.099	-0.101	16.931**	15.944
	(-3.124)	(-3.197)	(-2.949)	(-4.416)	(-2.258)	(-1.186)	(-0.677)	(-0.475)	(2.476)	(1.429)
Tradable Producers	-0.155		0.020		-0.176		0.038		-0.493	
	(-1.034)		(0.270)		(-1.484)		(0.721)		(-0.253)	
Firm Age	0.001	0.039*	-0.003	0.013	0.002**	0.028*	-0.004	0.011	-0.031	0.771
	(0.746)	(1.816)	(-0.260)	(1.088)	(2.081)	(1.921)	(-0.812)	(1.015)	(-1.082)	(1.292)
Domestic Currency Debt							0.406***	0.315***		
							(6.742)	(3.110)		
Access:										
Access to Int'l Bond Markets	0.096	-0.005	-0.033	-0.065	0.127**	0.064	-0.099*	-0.044	0.009	0.529
	(0.997)	(-0.072)	(-0.507)	(-1.347)	(2.063)	(1.273)	(-1.755)	(-1.203)	(0.011)	(0.635)
Access to Int'l Equity Markets	-0.032	-0.140	-0.103	-0.061	0.092	-0.101	-0.071	0.108*	-0.930	0.486
	(-0.209)	(-1.059)	(-1.223)	(-1.005)	(1.075)	(-0.898)	(-0.601)	(1.849)	(-0.585)	(0.170)
Financial Liberalization and Crises:										
Financial Liberalization	-0.739***	-2.065***	-0.348***	-1.267***	-0.390***	-0.432*	0.511***	0.000	2.578	-2.342
	(-4.145)	(-4.003)	(-3.078)	(-3.906)	(-3.848)	(-1.806)	(4.821)	(0.000)	(0.715)	(-0.274)
Mexican Crisis - 1995	0.108	-0.008	0.148	0.051	-0.037	-0.048	0.219***	0.142***	1.301	1.064
	(0.926)	(-0.125)	(1.356)	(1.096)	(-0.870)	(-1.156)	(4.956)	(2.774)	(0.593)	(0.443)
Asian Crisis - 1997	0.269	0.008	0.221	0.099	0.055	-0.080			-1.303	-3.948
	(1.507)	(0.046)	(1.510)	(0.936)	(0.846)	(-0.747)			(-0.822)	(-1.447)
Asian Crisis - 1998	-0.055	-0.176	-0.048	0.001	0.009	-0.162			0.445	-3.100
	(-0.372)	(-0.679)	(-0.601)	(0.017)	(0.108)	(-0.900)			(0.386)	(-0.921)
C	0.982**		0.574**		0.416		0.000		1.874	
	(2.146)		(2.314)		(1.497)		(0.000)		(0.261)	
Adjusted R-Squared	0.113	0.563	0.116	0.713	0.075	0.291	0.344	0.714	0.010	0.089
Fixed Effects										
Chi-Hausman		14.910**		14.205**		16.781***		16.141***		8.866**
Number of Firms	63	63	63	63	63	63	60	60	63	63
Number of Observations	341	341	341	341	345	345	228	228	277	277

Robust standard errors-White correction for heteroskedasticity. Indonesia and Thailand are the base country. T-statistics are in parenthesis.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table II: Argentina (Financial Development)

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables:	OLS	Within	OLS	Within	OLS	Within	OLS	Within	OLS	Within
Firms' Characteristics:										
Log of Net Fixed Assets	0.252***	0.592***	0.130***	0.340**	0.120***	0.107	-0.089***	-0.309***	-0.300	-0.085
	(4.080)	(2.704)	(2.901)	(2.577)	(4.062)	(0.959)	(-2.889)	(-2.922)	(-0.273)	(-0.063)
Net Fixed Assets/Total Assets	-1.159***	0.242	-0.778***	-0.273	-0.384***	0.708	0.076	-0.131	-4.448	13.520
	(-4.918)	(0.265)	(-4.473)	(-0.796)	(-3.730)	(1.002)	(0.819)	(-0.642)	(-0.906)	(1.611)
Profits/Total Assets	-1.719***	-1.885***	-1.116***	-1.296***	-0.605**	-0.573	-0.106	-0.098	17.198**	20.839
	(-3.078)	(-3.199)	(-2.869)	(-4.354)	(-2.321)	(-1.258)	(-0.700)	(-0.461)	(2.466)	(1.591)
Tradable Producers	-0.143		0.030		-0.174		0.040		0.134	
	(-0.951)		(0.386)		(-1.466)		(0.769)		(0.068)	
Firm Age	0.001	0.011	-0.001	0.001	0.002**	-0.002	-0.000	-0.061	-0.035	-2.169*
	(0.625)	(0.217)	(-0.403)	(0.056)	(2.013)	(-0.040)	(-0.910)	(-0.720)	(-1.171)	(-1.794)
Domestic Currency Debt							0.411***	0.313***		
							(6.860)	(3.099)		
Access:										
Access to Int'l Bond Markets	0.098	-0.001	-0.037	-0.061	0.136**	0.062	-0.101*	-0.049	-0.060	-0.303
	(1.028)	(-0.014)	(-0.556)	(-1.215)	(2.229)	(1.146)	(-1.792)	(-1.293)	(-0.067)	(-0.260)
Access to Int'l Equity Markets	-0.029	-0.141	-0.119	-0.059	0.098	-0.096	-0.085	0.122**	-1.824	0.955
	(-0.184)	(-1.102)	(-1.328)	(-1.040)	(1.042)	(-0.850)	(-0.713)	(2.111)	(-1.071)	(0.283)
Financial Liberalization and Crises:										
Financial Liberalization	-0.928***	-2.030***	-0.465***	-1.226***	-0.458***	-0.392	0.491***	0.000	-5.912	-0.475
	(-4.469)	(-3.652)	(-3.552)	(-3.550)	(-3.787)	(-1.291)	(4.491)	(0.000)	(-1.244)	(-0.057)
Financial Development	0.506	0.353	0.308	0.150	0.193	0.361	0.090	0.616	12.816*	41.754**
	(1.486)	(0.523)	(1.476)	(0.536)	(0.937)	(0.649)	(0.853)	(0.846)	(1.679)	(2.218)
Mexican Crisis - 1995	0.034	0.002	0.104	0.054	-0.066	-0.040	0.204***	0.211**	-0.036	0.915
	(0.270)	(0.032)	(0.939)	(1.159)	(-1.178)	(-1.026)	(4.247)	(2.212)	(-0.014)	(0.369)
Asian Crisis - 1997	0.167	0.040	0.159	0.114	0.016	-0.043			-3.392	-0.852
	(0.871)	(0.229)	(1.061)	(1.008)	(0.197)	(-0.422)			(-1.545)	(-0.348)
C	1.207**		0.704***		0.510*		0.000		12.062	
	(2.509)		(2.747)		(1.667)		(0.000)		(1.113)	
Adjusted R-Squared	0.12	0.58	0.119	0.714	0.078	0.314	0.343	0.714	0.037	0.096
Fixed Effects				11.711***		2.880***		5.745***		1.441**
Chi-Hausman		10.219*		12.708**		6.768		16.847***		9.0764***
Number of Firms	63	63	63	63	63	63	60	60	63	63
Number of Observations	332	332	332	332	335	335	228	228	267	267

Robust standard errors-White correction for heteroskedasticity. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table III: Argentina (Instrumental Variables) [1]

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt [2]		Ret. Earnings/T. Debt	
Independent Variables:	**IV**	**IV - FD**	**IV**	**IV - FD**	**IV**	**IV - FD**	**IV**	**IV - FD**	**IV**	**IV - FD**
Firms' Characteristics:										
Log of Net Fixed Assets	0.128	0.111	0.003	-0.007	0.119***	0.114**	-0.080**	-0.082**	0.092	0.145
	(1.367)	(1.129)	(0.041)	(-0.102)	(2.598)	(2.469)	(-2.114)	(-2.149)	(0.076)	(0.116)
Net Fixed Assets/Total Assets	-1.173***	-1.129***	-0.608***	-0.581***	-0.576**	-0.552**	0.176	0.180	-7.960	-7.457
	(-3.131)	(-2.987)	(-3.027)	(-2.845)	(-2.223)	(-2.137)	(1.491)	(1.543)	(-1.299)	(-1.225)
Profits/Total Assets	-2.712***	-2.997***	-1.488**	-1.630**	-1.250***	-1.380***	-0.040	-0.054	27.634**	25.434**
	(-2.637)	(-2.833)	(-2.109)	(-2.241)	(-2.691)	(-2.871)	(-0.125)	(-0.169)	(2.213)	(2.070)
Tradable Producers	-0.119	-0.138	0.108	0.100	-0.224	-0.237	0.056	0.057	-0.806	-0.352
	(-0.465)	(-0.534)	(0.905)	(0.836)	(-1.091)	(-1.144)	(0.840)	(0.859)	(-0.391)	(-0.171)
Firm Age	0.000	0.000	-0.001	-0.001	0.002*	0.002*	0.000	0.000	-0.030	-0.031
	(0.058)	(0.039)	(-0.820)	(-0.886)	(1.778)	(1.803)	(-0.015)	(-0.044)	(-1.078)	(-1.116)
Domestic Currency Debt							0.439***	0.443***		
							(5.235)	(5.362)		
Access:										
Access to Int'l Bond Markets	1.047***	1.021***	0.638**	0.628**	0.424**	0.400**	-0.186*	-0.186*	-0.877	-1.651
	(2.940)	(2.864)	(2.378)	(2.320)	(2.243)	(2.106)	(-1.961)	(-1.946)	(-0.328)	(-0.582)
Access to Int'l Equity Markets	-0.635	-0.546	-0.521	-0.494	-0.052	-0.020	0.000	0.000	0.541	0.761
	(-1.238)	(-1.081)	(-1.562)	(-1.478)	(-0.276)	(-0.105)	(0.000)	(0.000)	(0.217)	(0.278)
Financial Liberalization and Crises:										
Financial Liberalization	-0.497**	-0.971***	-0.178	-0.433*	-0.318***	-0.532***	0.000	0.000	2.030	-5.522
	(-2.410)	(-2.875)	(-0.945)	(-1.697)	(-2.655)	(-2.767)	(0.000)	(0.000)	(0.545)	(-1.097)
Financial Development		0.726		0.391		0.326		0.061		11.478
		(1.572)		(1.331)		(1.382)		(0.369)		(1.584)
Mexican Crisis - 1995	0.217	0.140	0.225*	0.185	-0.006	-0.042	0.203***	0.197***	0.786	-0.430
	(1.613)	(1.001)	(1.837)	(1.516)	(-0.106)	(-0.643)	(3.828)	(3.493)	(0.360)	(-0.175)
Asian Crisis - 1997	0.321	0.206	0.264	0.202	0.069	0.015			-1.530	-3.384
	(1.647)	(0.987)	(1.644)	(1.238)	(0.935)	(0.170)			(-0.916)	(-1.540)
Asian Crisis - 1998	-0.060		-0.039		0.006				0.224	
	(-0.314)		(-0.378)		(0.056)				(0.160)	
C	1.456*	2.227**	1.074*	1.489**	0.426	0.754*	1.009***	0.978***	0.904	10.045
	(1.752)	(2.480)	(1.670)	(2.154)	(1.057)	(1.687)	(3.610)	(3.271)	(0.103)	(0.846)
Adjusted R-Squared	0.050	0.059	0.027	0.030	0.060	0.067	0.362	0.366	-0.011	-0.007
Fixed Effects Chi-Hausman										
Number of Firms	63	63	63	63	63	63	60	60	63	63
Number of Observations	278	269	278	269	282	272	167	167	274	264

[1] With and without Financial Development

[2] There is not data for debt currency denomination in 1997 and 1998.

Robust standard errors-White correction for heteroskedasticity. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table IV: Panel Estimates for Debt-Equity Ratios (Financial Development)
Dependent Variable: Total Debt/Equity

Independent	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
Variables:	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	0.034	-0.049	0.006	0.045	0.000	-0.072	-0.007	-0.178*	0.042
	(0.898)	(-1.044)	(0.101)	(0.999)	(-0.001)	(-0.895)	(-0.161)	(-2.100)	(0.631)
Net Fixed Assets/Total Assets	-1.204***	-0.196	-1.739***	-0.947***	-1.491***	-0.775**	-1.574***	0.069	-1.963***
	(-5.483)	(-0.543)	(-6.687)	(-4.564)	(-3.396)	(-2.260)	(-6.414)	(0.174)	(-7.379)
Profits/Total Assets	-8.296***	-8.095**	-15.988***	-2.872***	-2.346***	-7.455***	-10.808***	-8.784	-20.627***
	(-3.382)	(-2.544)	(-4.507)	(-8.820)	(-6.188)	(-5.270)	(-5.208)	(-3.242)	(-3.992)
Tradable Producers	-0.204		0.110	-0.222*		-0.367**	-1.064***		-0.070
	(-0.785)		(0.318)	(-1.927)		(-2.125)	(-4.708)		(-0.297)
Access:									
Access to Int'l Bond Markets	0.340**	0.120	0.812*	0.104	0.032	0.801***	0.144	0.059	-0.494
	(2.144)	(1.227)	(1.837)	(1.168)	(0.586)	(3.028)	(0.663)	(0.345)	(-1.250)
Access to Int'l Equity Markets	0.000	0.000	0.000***	0.650***	0.164	0.714	0.000*	0.000***	0.000***
	(1.584)	(0.849)	(2.980)	(3.046)	(0.916)	(1.041)	(1.709)	(0.908)	(3.141)
Financial Liberalization and Crises:									
Financial Liberalization	-0.789***	-0.707	-0.998***	-0.697**	-0.148	-0.702	-0.464	-0.440	-0.692
	(-3.167)	(-1.495)	(-2.741)	(-2.254)	(-0.546)	(-1.159)	(-1.241)	(-1.063)	(-1.535)
Financial Development	0.069	0.074	0.129	0.339**	0.335***	0.440**	-0.072	-0.035*	0.043
	(0.635)	(0.552)	(1.099)	(2.576)	(2.894)	(2.495)	(-1.531)	(-0.659)	(0.660)
Mexican Crisis - 1995	-0.268	-0.108	-0.520	0.007	-0.008	0.054	0.234*	0.121*	0.001
	(-0.861)	(-0.680)	(-1.047)	(0.096)	(-0.123)	(0.499)	(1.884)	(1.316)	(0.009)
Asian Crisis - 1997	1.229**	1.116*	0.800	0.210	0.185	0.313*	0.937***	0.714	0.602***
	(2.556)	(1.739)	(1.306)	(1.208)	(1.301)	(1.752)	(3.680)	(3.555)	(2.748)
Country Effects:									
Argentina	-1.272***		-1.547***	0.196		-0.492			
	(-4.998)		(-3.412)	(0.556)		(-0.759)			
Brazil	-1.450***		-1.916***	-0.126		-0.963**			
	(-3.315)		(-2.915)	(-0.518)		(-2.204)			
Mexico	-1.151***		-1.330*						
	(-3.360)		(-1.936)						
Indonesia	-0.391**		-0.086				0.685*		0.383
	(-2.094)		(-0.166)				(1.735)		(0.979)
South Korea	0.777*		0.149				1.944***		0.615*
	(1.708)		(0.189)				(5.857)		(1.875)
Malaysia	-1.264**		-1.763**				0.000		-0.854**
	(-2.084)		(-2.178)				(0.000)		(-2.204)
C	4.259***		5.340***	2.260***		3.876***	4.276***		4.530***
	(8.262)		(6.620)	(7.568)		(6.513)	(7.826)		(4.748)
Adjusted R-Squared	0.040	0.155	0.029	0.075	0.483	0.055	0.246	0.507	0.198
Fixed Effects		2.037***			6.866***			5.879***	
Chi-Hausman		0.153			1.961			206.73***	
Number of Firms	778	778	778	230	230	230	281	281	281
Number of Observations	5930	5930	4296	1713	1713	1210	2503	2503	2944

Robust standard errors-White correction for heteroskedasticity. Base country is Thailand. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

*,**,*** *indicate 10,5,1, percent level of significance, respectively*

Appendix Table V: Panel Estimates for Short Term Debt (Financial Development)
Dependent Variable: Short-Term Debt/Equity

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	-0.068**	-0.059	-0.115**	-0.005	-0.010	-0.095***	-0.096***	-0.125*	-0.100*
	(-2.240)	(-1.530)	(-2.323)	(-0.445)	(-0.941)	(-3.949)	(-2.644)	(-1.733)	(-1.738)
Net Fixed Assets/Total Assets	-1.057***	-0.135	-1.410***	-0.964***	-0.970***	-0.768***	-1.433***	-0.204	-1.458***
	(-5.582)	(-0.441)	(-6.917)	(-12.179)	(-8.376)	(-5.568)	(-7.800)	(-0.655)	(-7.176)
Profits/Total Assets	-6.522***	-6.612**	-12.462***	-1.522***	-1.191***	-3.921***	-7.748***	-6.372	-14.911***
	(-2.818)	(-2.193)	(-3.724)	(-8.730)	(-3.135)	(-5.444)	(-4.144)	(-2.491)	(-3.283)
Tradable Producers	0.084		0.363	-0.148***		-0.171**	-0.599***		0.161
	(0.352)		(1.131)	(-3.082)		(-2.567)	(-3.285)		(0.815)
Access:									
Access to Int'l Bond Markets	0.026	-0.083	0.297	0.011	-0.069**	0.473***	-0.020	-0.078	-0.691**
	(0.253)	(-1.141)	(0.813)	(0.297)	(-2.158)	(3.218)	(-0.152)	(-0.681)	(-2.369)
Access to Int'l Equity Markets	0.000*	0.000	0.000***	0.101	0.109	0.203	0.000**	0.000***	0.000***
	(1.916)	(0.956)	(3.384)	(1.453)	(1.252)	(1.044)	(2.040)	(0.957)	(4.079)
Financial Liberalization and Crises:									
Financial Liberalization	-0.202	-0.530	-0.349	-0.137*	0.011	-0.056	-0.059	-0.141	-0.127
	(-1.302)	(-1.299)	(-1.615)	(-1.713)	(0.137)	(-0.330)	(-0.209)	(-0.434)	(-0.383)
Financial Development	0.036	0.052	0.081	0.114**	0.113**	0.124	-0.087**	-0.088**	-0.004
	(0.348)	(0.411)	(0.755)	(2.117)	(2.373)	(1.564)	(-2.393)	(-1.898)	(-0.072)
Mexican Crisis - 1995	-0.263	-0.133	-0.457	0.040	0.010	0.121**	0.173*	0.082*	-0.011
	(-0.890)	(-0.899)	(-0.968)	(0.790)	(0.241)	(1.979)	(1.773)	(1.218)	(-0.111)
Asian Crisis - 1997	0.752*	0.600	0.426	0.059	0.071	0.125	0.507***	0.381	0.309**
	(1.705)	(1.000)	(0.743)	(0.792)	(1.316)	(1.539)	(3.126)	(3.195)	(2.197)
Country Effects:									
Argentina	-1.222***		-1.483***	-0.052		-0.622***			
	(-5.450)		(-3.684)	(-0.523)		(-3.225)			
Brazil	-1.261***		-1.714***	-0.044		-0.701***			
	(-3.072)		(-2.776)	(-0.558)		(-4.368)			
Mexico	-0.705**		-0.758						
	(-2.401)		(-1.214)						
Indonesia	-0.223		0.040				0.643**		0.535
	(-1.331)		(0.082)				(2.130)		(1.545)
South Korea	0.547		0.106				1.499***		0.627**
	(1.332)		(0.145)				(5.578)		(2.591)
Malaysia	-1.041*		-1.530**				0.000		-0.776***
	(-1.824)		(-2.024)				(0.000)		(-2.632)
C	3.169***		4.183***	1.450***		2.464***	3.311***		3.577***
	(7.407)		(6.291)	(13.519)		(8.856)	(7.792)		(4.881)
Adjusted R-Squared	0.021	0.131	0.016	0.215	0.572	0.156	0.175	0.421	0.137
Fixed Effects		1.955***			7.231***			4.841***	
Chi-Hausman		0.348			1.108			0.932	
Number of Firms	778	778	778	230	230	230	281	281	281
Number of Observations	5930	5930	4296	1713	1713	1210	2503	2503	2976

Robust standard errors-White correction for heteroskedasticity. Base country is Thailand. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial libera ization.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table VI: Panel Estimates for Long-Term Debt (Financial Development)
Dependent Variable: Long-Term Debt/Equity

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	0.102***	0.011	0.121***	0.050	0.010	0.024	0.089***	-0.053**	0.155***
	(5.970)	(0.550)	(5.043)	(1.368)	(0.373)	(0.370)	(4.923)	(-1.315)	(6.313)
Net Fixed Assets/Total Assets	-0.148*	-0.061	-0.329***	0.017	-0.521	-0.006	-0.141	0.272	-0.520***
	(-1.927)	(-0.497)	(-2.686)	(0.106)	(-1.567)	(-0.026)	(-1.135)	(1.912)	(-3.976)
Profits/Total Assets	-1.774***	-1.483***	-3.526***	-1.349***	-1.155***	-3.533***	-3.059***	-2.412	-4.581***
	(-7.564)	(-4.968)	(-6.680)	(-6.101)	(-4.430)	(-3.513)	(-7.300)	(-5.599)	(-6.236)
Tradable Producers	-0.288***		-0.253***	-0.075		-0.196	-0.465***		-0.279***
	(-4.334)		(-3.330)	(-0.768)		(-1.328)	(-3.379)		(-3.177)
Access:									
Access to Int'l Bond Markets	0.313***	0.203***	0.514***	0.093	0.101**	0.328*	0.164	0.137*	0.160
	(3.893)	(4.560)	(3.478)	(1.276)	(2.573)	(1.771)	(1.465)	(1.636)	(0.793)
Access to Int'l Equity Markets	0.000	0.000	0.000**	0.549**	0.055	0.511	0.000	0.000***	0.000**
	(1.111)	(0.665)	(2.206)	(2.554)	(0.516)	(0.864)	(1.206)	(0.805)	(2.371)
Financial Liberalization and Crises:									
Financial Liberalization	-0.587***	-0.177	-0.649***	-0.560**	-0.159	-0.646	-0.405***	-0.300	-0.556***
	(-3.673)	(-1.056)	(-2.722)	(-2.191)	(-0.734)	(-1.327)	(-2.644)	(-1.737)	(-2.917)
Financial Development	0.034**	0.022	0.047*	0.225**	0.222**	0.316***	0.014	0.053**	0.037*
	(2.077)	(1.430)	(1.877)	(2.352)	(2.512)	(2.616)	(0.735)	(2.875)	(1.810)
Mexican Crisis - 1995	-0.005	0.025	-0.063	-0.032	-0.018	-0.067	0.061	0.038**	0.018
	(-0.174)	(0.972)	(-1.605)	(-0.657)	(-0.417)	(-0.947)	(1.192)	(0.894)	(0.399)
Asian Crisis - 1997	0.477***	0.516***	0.374***	0.151	0.114	0.188	0.430***	0.333*	0.337***
	(4.350)	(5.295)	(3.564)	(1.091)	(0.964)	(1.350)	(3.248)	(3.332)	(2.934)
Country Effects:									
Argentina	-0.050		-0.064	0.248		0.131			
	(-0.639)		(-0.501)	(0.881)		(0.256)			
Brazil	-0.189***		-0.201**	-0.081		-0.261			
	(-2.941)		(-2.160)	(-0.429)		(-0.798)			
Mexico	-0.445***		-0.572***						
	(-3.435)		(-3.155)						
Indonesia	-0.168***		-0.125				0.042		-0.178*
	(-2.901)		(-1.328)				(0.216)		(-1.745)
South Korea	0.230*		0.043				0.444***		-0.006
	(1.831)		(0.252)				(2.877)		(-0.044)
Malaysia	-0.222**		-0.233*				0.000		-0.011
	(-2.536)		(-1.744)				(0.000)		(-0.070)
C	1.091***		1.157***	0.810***		1.412***	0.965***		0.832**
	(5.051)		(3.521)	(3.344)		(3.349)	(3.464)		(2.053)
Adjusted R-Squared	0.180	0.424	0.164	0.043	0.425	0.024	0.241	0.485	0.211
Fixed Effects		4.311***			5.927***			5.401***	
Chi-Hausman		40.732***			1.49			6.774**	
Number of Firms	778	778	778	230	230	230	281	281	281
Number of Observations	5930	5930	4296	1713	1713	1210	2503	2503	2912

Robust standard errors-White correction for heteroskedasticity. Base country is Thailand. T-statistics are in parenthesis.
The variable "financial development" is the interaction of domestic financial development and financial liberalization.
*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table VII: Panel Estimates for Maturity Structure (Financial Development)
Dependent Variable: Short-Term Debt/Total Debt

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	-0.042***	-0.021***	-0.038***	-0.030***	-0.014***	-0.014	-0.035***	-0.023***	-0.044***
	(-15.228)	(-6.672)	(-8.367)	(-6.626)	(-3.063)	(-1.390)	(-8.455)	(-3.671)	(-9.332)
Net Fixed Assets/Total Assets	-0.176***	-0.099***	-0.187***	-0.314***	-0.227***	-0.347***	-0.194***	-0.083**	-0.147***
	(-11.081)	(-3.686)	(-7.964)	(-9.633)	(-3.719)	(-6.345)	(-7.434)	(-2.417)	(-5.557)
Profits/Total Assets	0.193***	0.190***	0.192	0.113**	0.190***	0.183	0.290***	0.173*	0.286**
	(5.112)	(4.585)	(1.617)	(2.019)	(2.940)	(0.680)	(4.814)	(2.593)	(2.265)
Tradable Producers	0.075***		0.075***	0.010		0.018	0.046***		0.082***
	(7.494)		(6.296)	(0.309)		(0.346)	(2.810)		(6.120)
Access:									
Access to Int'l Bond Markets	-0.154***	-0.091***	-0.312***	-0.179***	-0.095***	-0.420***	-0.051**	-0.035**	-0.234***
	(-8.916)	(-7.122)	(-7.901)	(-6.811)	(-4.557)	(-6.061)	(-2.592)	(-2.289)	(-4.300)
Access to Int'l Equity Markets	0.000***	0.000	0.000	-0.166***	-0.011	0.029	0.000***	0.000***	0.000
	(3.957)	(0.045)	(1.323)	(-2.729)	(-0.248)	(0.163)	(4.217)	(-0.647)	(1.355)
Financial Liberalization and Crises:									
Financial Liberalization	0.122***	0.062***	0.055**	0.136***	0.071*	0.012	0.137***	0.096**	0.136***
	(6.328)	(3.273)	(2.121)	(3.554)	(1.842)	(0.183)	(4.817)	(3.670)	(4.389)
Financial Development	-0.014***	-0.013***	-0.007*	-0.084***	-0.054**	-0.052	-0.014***	-0.014***	-0.015***
	(-4.398)	(-4.015)	(-1.658)	(-3.249)	(-2.281)	(-1.523)	(-2.669)	(-2.645)	(-2.942)
Mexican Crisis - 1995	-0.013	-0.018**	-0.015	0.002	-0.018	-0.010	0.009	0.002**	-0.021
	(-1.165)	(-2.399)	(-1.112)	(0.104)	(-0.952)	(-0.359)	(0.445)	(0.125)	(-1.270)
Asian Crisis - 1997	-0.013	-0.016*	-0.018	-0.046	-0.040*	-0.057*	-0.021	-0.009**	-0.003
	(-0.972)	(-1.649)	(-1.239)	(-1.470)	(-1.659)	(-1.676)	(-0.851)	(-0.523)	(-0.185)
Country Effects:									
Argentina	-0.134***		-0.095***	-0.174***		-0.044			
	(-7.668)		(-3.889)	(-4.021)		(-0.549)			
Brazil	-0.130***		-0.133***	-0.113***		-0.052			
	(-9.166)		(-7.238)	(-3.319)		(-0.757)			
Mexico	0.061***		0.073**						
	(2.870)		(2.510)						
Indonesia	-0.011		0.004				-0.027		0.029
	(-0.713)		(0.152)				(-0.704)		(1.172)
South Korea	-0.002		-0.042*				-0.001		0.016
	(-0.133)		(-1.859)				(-0.030)		(0.691)
Malaysia	-0.045***		-0.078***				0.000		-0.037
	(-3.222)		(-3.936)				(0.000)		(-1.350)
C	0.924***		1.013***	1.016***		1.047***	0.855***		0.892***
	(29.553)		(23.132)	(18.226)		(9.115)	(24.008)		(14.726)
Adjusted R-Squared	0.230	0.600	0.221	0.217	0.540	0.178	0.279	0.621	0.278
Fixed Effects		8.236***			6.201***			9.116***	
Chi-Hausman		23.287***			3.791			13.398**	
Number of Firms	778	778	778	230	230	230	281	281	281
Number of Observations	5930	5930	4296	1713	1713	1210	2503	2503	2976

Robust standard errors-White correction for heteroskedasticity. Base country is Thailand. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table VIII: Panel Estimates for Internal Financing (Financial Development)
Dependent Variable: Retained Earnings/Total Debt

Independent Variables:	Pool Latin America and East Asia			Pool Latin America			Pool East Asia		
	OLS	Within	IV	OLS	Within	IV	OLS	Within	IV
Firms' Characteristics:									
Log of Net Fixed Assets	-0.127	-0.116	-0.004	-1.547	-0.910*	9.607	-0.023**	-0.012**	-0.040***
	(-1.269)	(-1.388)	(-0.083)	(-1.200)	(-1.690)	(0.826)	(-2.495)	(-0.857)	(-4.348)
Net Fixed Assets/Total Assets	-0.495	0.232	-1.345	0.224	3.688*	-23.761	-0.017	-0.087	0.003
	(-1.452)	(1.003)	(-1.342)	(0.167)	(1.723)	(-0.934)	(-0.249)	(-0.799)	(0.078)
Profits/Total Assets	5.658***	2.110	14.283	10.718**	1.792	12.467	2.739***	2.840	2.601***
	(3.416)	(1.418)	(1.456)	(2.036)	(0.638)	(0.579)	(10.319)	(7.616)	(6.881)
Tradable Producers	0.148		0.054	1.523		-0.279	0.049***		0.031**
	(0.911)		(0.482)	(0.889)		(-0.088)	(4.146)		(2.260)
Access:									
Access to Int'l Bond Markets	-0.445	0.196	-2.460	-0.687	0.728	-23.880	-0.051**	-0.016**	0.058
	(-1.052)	(1.239)	(-1.265)	(-0.741)	(1.034)	(-1.032)	(-2.273)	(-1.496)	(1.495)
Access to Int'l Equity Markets	-0.055	0.000	0.000	-2.517	0.224	10.574	-0.023	0.000***	0.000
	(-0.090)	(-0.679)	(0.717)	(-0.766)	(0.073)	(0.727)	(-0.436)	(-0.697)	(0.326)
Financial Liberalization and Crises:									
Financial Liberalization	0.739	0.260	0.922	11.035	4.164	-50.799	0.053	0.001*	0.128**
	(1.356)	(1.185)	(1.095)	(1.171)	(1.524)	(-0.760)	(0.684)	(0.026)	(2.362)
Financial Development	-0.126	-0.027	-0.195	-0.632	0.271	-18.930	0.025***	0.028**	0.002
	(-1.063)	(-0.746)	(-0.972)	(-0.327)	(0.157)	(-0.939)	(2.830)	(2.763)	(0.220)
Mexican Crisis - 1995	1.569	1.446	1.787	7.557	6.253	1.788	-0.011	-0.014*	0.006
	(1.064)	(1.356)	(1.005)	(1.047)	(1.300)	(0.416)	(-0.239)	(-0.270)	(0.227)
Asian Crisis - 1997	0.021	0.306	-0.072	-2.109	-0.065	-4.674	-0.047*	-0.026**	0.026
	(0.098)	(0.953)	(-0.237)	(-1.173)	(-0.038)	(-1.297)	(-1.705)	(-0.887)	(0.730)
Country Effects:									
Argentina	3.224		4.985*	-0.430		20.240			
	(1.574)		(1.679)	(-0.308)		(0.834)			
Brazil	0.160		0.850						
	(0.903)		(1.526)						
Mexico			0.000						
			(0.000)						
Indonesia	0.102		-0.920				0.304***		0.395***
	(0.554)		(-0.832)				(4.503)		(8.471)
South Korea	0.964*		0.931				0.253***		0.364***
	(1.717)		(1.379)				(4.534)		(8.944)
Malaysia	0.276*		0.944				0.000		0.021
	(1.703)		(1.088)				(0.000)		(0.442)
C	-0.425*		-1.618	-10.040		48.273	-0.065		-0.052
	(-1.685)		(-1.051)	(-1.128)		(0.747)	(-0.797)		(-0.502)
Adjusted R-Squared	0.001	0.150	0.010	0.015	0.147	-0.011	0.196	0.425	0.319
Fixed Effects		2.255***			2.143***			4.543***	
Chi-Hausman		0.01			0.039			0.385	
Number of Firms	744	744	744	165	165	165	281	281	281
Number of Observations	5688	5813	4242	1230	1251	925	2503	4456	3186

Robust standard errors-White correction for heteroskedasticity. Base country is Thailand. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table IX.A: Bank-Based vs. Market-Based Systems (OLS- Financial Development)

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables:	Bank	Market	Bank	Market	Bank	Market	Bank	Market	Bank	Market
Firms' Characteristics:										
Log of Net Fixed Assets	0.103***	0.020	0.020	-0.085**	0.083***	0.105***	-0.059***	-0.039***	-0.219	-0.026***
	(3.224)	(0.463)	(0.903)	(-2.541)	(4.435)	(5.199)	(-5.624)	(-14.001)	(-0.781)	(-5.068)
Net Fixed Assets/Total Assets	-0.813***	-1.282***	-0.671***	-1.152***	-0.142	-0.130	-0.062	-0.193***	-4.385	0.064**
	(-3.226)	(-5.624)	(-4.977)	(-5.901)	(-1.004)	(-1.530)	(-1.304)	(-11.297)	(-1.554)	(1.981)
Profits/Total Assets	-2.009***	-9.592***	-1.141***	-7.655***	-0.868***	-1.937***	0.296***	0.168***	15.385**	2.980***
	(-5.124)	(-3.153)	(-3.922)	(-2.672)	(-4.962)	(-6.665)	(3.532)	(4.078)	(1.988)	(17.275)
Tradable Producers	-0.036	-0.155	0.011	0.151	-0.049	-0.307***	0.065	0.078***	0.951	0.018*
	(-0.261)	(-0.520)	(0.150)	(0.549)	(-0.437)	(-4.329)	(1.599)	(7.490)	(0.569)	(1.730)
Access:										
Access to Int'l Bond Markets	0.241***	0.310	0.004	-0.054	0.237***	0.364***	-0.140***	-0.157***	-0.733	0.018*
	(2.616)	(1.352)	(0.062)	(-0.348)	(3.649)	(3.311)	(-4.400)	(-7.425)	(-0.755)	(1.656)
Access to Int'l Equity Markets	0.077	0.000*	0.080	0.000**	-0.003	0.000	-0.099*	0.000***	-3.906	-0.000
	(0.489)	(1.692)	(0.979)	(2.130)	(-0.025)	(1.076)	(-1.736)	(3.939)	(-0.888)	(-1.134)
Financial Liberalization and Crises:										
Financial Liberalization	-0.538***	-0.806***	-0.199	-0.186	-0.339***	-0.621***	0.248***	0.106***	8.570	0.072
	(-2.719)	(-2.798)	(-1.496)	(-0.979)	(-3.151)	(-3.490)	(3.826)	(5.313)	(0.812)	(1.397)
Financial Development	0.035	0.077	-0.002	0.043	0.038	0.035**	0.016	-0.012***	-5.885	0.005
	(0.182)	(0.644)	(-0.015)	(0.376)	(0.386)	(2.006)	(0.303)	(-3.884)	(-0.756)	(0.745)
Mexican Crisis - 1995	0.137	-0.396	0.121	-0.385	0.015	-0.011	0.011	-0.024*	8.858	-0.006
	(1.237)	(-0.993)	(1.308)	(-1.015)	(0.304)	(-0.314)	(0.394)	(-1.861)	(0.988)	(-0.426)
Asian Crisis - 1997	0.263	1.363**	0.107	0.833	0.156	0.531***	-0.022	-0.017	-1.303	0.023
	(1.238)	(2.309)	(1.082)	(1.531)	(0.952)	(4.191)	(-0.584)	(-1.113)	(-0.832)	(0.699)
Country Effects:										
Argentina	-0.123		-0.279*		0.156		-0.182***		0.157	
	(-0.580)		(-1.792)		(1.445)		(-3.546)		(0.043)	
Brazil		-0.158		-0.194		0.036		-0.079***		0.132***
		(-0.631)		(-0.862)		(0.603)		(-6.391)		(5.761)
Mexico		0.248		0.487		-0.238		0.093***		
		(0.514)		(1.131)		(-1.601)		(3.781)		
South Korea		2.094***		1.656***		0.438***		0.027		0.276***
		(7.015)		(6.489)		(3.981)		(1.476)		(9.143)
Thailand		1.330**		1.101*		0.228**		0.046***		-0.019
		(2.069)		(1.819)		(2.533)		(3.204)		(-0.611)
C	1.659***	3.121***	1.375***	2.213***	0.284	0.908***	0.765***	0.889***	-10.163	-0.062
	(3.001)	(8.874)	(3.560)	(7.875)	(1.018)	(5.589)	(6.099)	(39.106)	(-0.780)	(-1.110)
Adjusted R-Squared	0.116	0.039	0.111	0.021	0.090	0.178	0.203	0.237	0.007	0.345
Fixed Effects										
Chi-Hausman										
Number of Firms	140	638	140	638	140	638	140	638	139	605
Number of Observations	766	5164	766	5164	766	5164	766	5164	726	4962

Robust standard errors-White correction for heteroskedasticity. Base country is Malaysia. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

Bank-based countries: Argentina and Indonesia. Market-based countries: Brazil, Malaysia, Mexico, South Korea, and Thailand.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table IX.B: Bank-Based vs. Market-Based Systems (Within- Financial Development)

Dependent Variables:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Debt		Ret. Earnings/T. Debt	
Independent Variables	Bank	Market	Bank	Market	Bank	Market	Bank	Market	Bank	Market
Firms' Characteristics:										
Log of Net Fixed Assets	-0.173*	-0.049	-0.156*	-0.059	-0.017	0.010	-0.025	-0.021***	-0.205	-0.020***
	(-1.735)	(-1.020)	(-1.882)	(-1.489)	(-0.438)	(0.497)	(-1.311)	(-6.501)	(-0.653)	(-2.604)
Net Fixed Assets/Total	0.630**	-0.428	0.292	-0.260	0.337**	-0.168	-0.086	-0.100***	-0.328	0.120*
Assets	(2.457)	(-0.987)	(1.599)	(-0.707)	(2.286)	(-1.150)	(-1.494)	(-3.273)	(-0.220)	(1.695)
Profits/Total Assets	-2.593***	-8.904**	-1.503***	-7.376**	-1.090***	-1.528***	0.091	0.207***	-8.499	3.134***
	(-4.885)	(-2.400)	(-5.055)	(-2.099)	(-3.172)	(-4.469)	(0.710)	(4.691)	(-0.539)	(16.925)
Tradable Producers										
Access:										
Access to Int'l Bond	0.088	0.122	-0.024	-0.122	0.112**	0.244***	-0.053**	-0.104***	1.140	-0.023**
Markets	(1.218)	(0.904)	(-0.528)	(-1.185)	(2.032)	(4.295)	(-2.106)	(-6.923)	(1.132)	(-2.474)
Access to Int'l Equity	0.035	0.000	0.036	0.000	-0.001	0.000	-0.032	0.000	-0.112	0.000
Markets	(0.208)	(0.913)	(0.467)	(1.071)	(-0.007)	(0.662)	(-0.709)	(0.110)	(-0.031)	(-0.993)
Financial Liberalization and Crises:										
Financial Liberalization	0.023	-0.772	0.090	-0.602	-0.067	-0.170	-0.014	0.067***	4.455	0.055
	(0.079)	(-1.451)	(0.377)	(-1.294)	(-0.485)	(-0.956)	(-0.182)	(3.481)	(0.707)	(1.179)
Financial Development	0.238*	0.081	0.113	0.061	0.125	0.020	0.004	-0.013***	-5.236	0.011*
	(1.705)	(0.574)	(1.220)	(0.457)	(1.428)	(1.241)	(0.098)	(-4.168)	(-0.844)	(1.922)
Mexican Crisis - 1995	0.106	-0.173	0.082	-0.194	0.024	0.022	-0.003	-0.022***	7.984	-0.003
	(1.193)	(-0.803)	(1.215)	(-0.966)	(0.547)	(0.699)	(-0.135)	(-2.610)	(1.193)	(-0.171)
Asian Crisis - 1997	0.269	1.236	0.119*	0.650	0.150	0.586***	-0.033	-0.013	0.929	0.041
	(1.556)	(1.543)	(1.843)	(0.866)	(1.016)	(5.106)	(-1.044)	(-1.296)	(0.403)	(1.387)
Adjusted R-Squared	0.451	0.160	0.572	0.137	0.233	0.431	0.571	0.605	0.079	0.476
Fixed Effects										
Chi-Hausman	18.628***	0.365	7.846**	0.611	18.158***	68.031***	2.8347	19.77***	3.443*	1.7139
Number of Firms	140	638	140	638	140	638	140	638	139	605
Number of Observations	766	5164	766	5164	766	5164	766	5164	726	4962

Robust standard errors-White correction for heteroskedasticity. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

Bank-based countries: Argentina and Indonesia. Market-based countries: Brazil, Malaysia, Mexico, South Korea, and Thailand.

*,**,*** indicate 10,5,1, percent level of significance, respectively

Appendix Table IX.C: Bank-Based vs. Market-Based Systems (IV- Financial Development)

Dependent Variable:	Total Debt/Equity		Short-Term Debt/Equity		Long-Term Debt/Equity		Short-Term Debt/T.Deb		Ret. Earnings/T. Debt	
Independent Variabl	Bank	Market	Bank	Market	Bank	Market	Bank	Market	Bank	Market
Firms' Characteristics:										
Log of Net Fixed Asse	0.126**	-0.015	0.007	-0.137**	0.119***	0.122***	-0.066***	-0.034***	0.709	-0.057***
	(2.355)	(-0.206)	(0.179)	(-2.308)	(4.305)	(4.393)	(-4.696)	(-7.161)	(1.219)	(-5.638)
Net Fixed	-1.479***	-1.795***	-0.878***	-1.504***	-0.601**	-0.291**	0.000	-0.210***	-12.638	0.141***
Assets/Total Assets	(-3.479)	(-5.988)	(-3.774)	(-6.263)	(-2.181)	(-2.193)	(-0.005)	(-8.497)	(-1.508)	(3.126)
Profits/Total Assets	-2.252**	-	-1.381**	-	-0.870	-4.305***	0.199	0.165	36.427	2.327***
	(-2.208)	20.254***	(-2.040)	15.949***	(-1.532)	(-6.178)	(0.806)	(1.194)	(1.268)	(6.031)
Tradable Producers	-0.214	0.312	-0.027	0.552	-0.188	-0.240***	0.090	0.079***	0.650	0.043***
	(-0.705)	(0.756)	(-0.251)	(1.429)	(-0.756)	(-2.922)	(1.347)	(6.265)	(0.277)	(3.010)
Access:										
Access to Int'l Bond	1.576***	0.247	0.651**	-0.209	0.925***	0.455**	-0.370***	-0.310***	-11.837	0.138***
Markets	(3.349)	(0.383)	(2.185)	(-0.380)	(3.698)	(2.340)	(-3.557)	(-6.486)	(-1.219)	(3.635)
Access to Int'l Equity	-1.342	0.000***	-0.420	0.000***	-0.922	0.000**	0.207	0.000	10.117	0.000
Markets	(-1.258)	(2.880)	(-0.865)	(2.957)	(-1.459)	(2.267)	(0.941)	(1.319)	(0.996)	(0.923)
Financial Liberalization and Crises:										
Financial Liberalizati	-0.623	-1.126***	-0.470	-0.427	-0.153	-0.698***	0.511	0.045*	37.237	0.091
	(-0.612)	(-2.753)	(-0.505)	(-1.614)	(-0.354)	(-2.755)	(0.927)	(1.669)	(1.232)	(1.643)
Financial Developme	-0.029	0.177	0.011	0.120	-0.040	0.057**	0.069	-0.007	-10.556	0.013
	(-0.100)	(1.322)	(0.047)	(0.971)	(-0.270)	(2.099)	(0.853)	(-1.470)	(-0.959)	(1.284)
Mexican Crisis - 1995	0.219*	-0.839	0.151	-0.738	0.068	-0.101**	-0.011	-0.026*	8.872	-0.001
	(1.698)	(-1.229)	(1.569)	(-1.137)	(1.031)	(-1.974)	(-0.325)	(-1.684)	(0.989)	(-0.089)
Asian Crisis - 1997	0.299	0.756	0.127	0.368	0.172	0.388***	-0.024	-0.022	-2.894	0.019
	(1.339)	(0.994)	(1.173)	(0.515)	(1.036)	(3.194)	(-0.623)	(-1.412)	(-1.356)	(0.528)
Country Effects:										
Argentina	-0.090		-0.296		0.206		-0.225**		0.312	
	(-0.267)		(-1.101)		(1.231)		(-1.988)		(0.072)	
Brazil		-2.055***		-1.829***		-0.226**		-0.126***		0.067*
		(-2.945)		(-2.791)		(-2.320)		(-6.728)		(1.829)
Mexico		-1.242*		-0.662		-0.580***		0.056*		
		(-1.674)		(-0.981)		(-3.006)		(1.849)		
South Korea		0.047		0.032		0.015		-0.060**		0.389***
		(0.055)		(0.040)		(0.080)		(-2.519)		(9.771)
Malaysia		-1.957**		-1.697**		-0.261*		-0.074***		-0.077
		(-2.250)		(-2.087)		(-1.913)		(-3.659)		(-1.532)
C	2.042	5.726***	2.169	4.503***	-0.128	1.223***	0.197	1.012***	-72.973	0.093
	(0.988)	(6.275)	(1.159)	(5.839)	(-0.140)	(3.638)	(0.169)	(22.868)	(-1.267)	(0.868)
Adjusted R-Squared	0.050	0.029	0.048	0.016	0.054	0.158	0.211	0.221	-0.002	0.338
Fixed Effects										
Chi-Hausman										
Number of Firms	140	638	140	638	140	638	140	638	139	605
Number of Observatic	497	3799	497	3799	497	3799	497	3799	510	3732

Robust standard errors-White correction for heteroskedasticity. Base country is Thailand. T-statistics are in parenthesis.

The variable "financial development" is the interaction of domestic financial development and financial liberalization.

Bank-based countries: Argentina and Indonesia. Market-based countries: Brazil, Malaysia, Mexico, South Korea, and Thailand.

*,**,*** indicate 10,5,1, percent level of significance, respectively

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